This printed version of the Schedule of Classes is current as of 6/22/20 3:34 PM.

AASP African American Studies Spring 2020

AASP100 **Introduction to African American Studies**

Credits: 3 | Grading Method: Regular, Pass-Fail, Audit | CORE: SH, D | General Education: DSHS, DVUP

Significant aspects of the history of African Americans with particular emphasis on the evolution and development of black communities from slavery to the present. Interdisciplinary introduction to social, political, legal and economic roots of contemporary problems faced by blacks in the United States with applications to the lives of other racial and ethnic minorities in the Americas and in other societies.

0101	Shane Walsh MWF 10:00am - 10:50am	Seats (Total: 35) JMZ 2206
0102	Shane Walsh MWF 12:00pm - 12:50pm	Seats (Total: 35) SQH 1103
0103	Jonathan England TuTh 11:00am - 12:15pm	Seats (Total: 30) HBK 0105
0104	Jonathan England TuTh 12:30pm - 1:45pm	Seats (Total: 30) TYD 2108
0105	Jason Nichols TuTh 11:00am - 12:15pm	Seats (Total: 35) MTH 0106
0106	Jason Nichols TuTh 2:00pm - 3:15pm	Seats (Total: 35) PLS 1113
0107	Shane Walsh MWF 2:00pm - 2:50pm	Seats (Total: 35) EGR 3106

AASP100H **Introduction to African American Studies**

Credits: 3 | Grading Method: Regular, Pass-Fail, Audit | CORE: SH, D | General Education: DSHS, DVUP

Significant aspects of the history of African Americans with particular emphasis on the evolution and development of black communities from slavery to the present. Interdisciplinary introduction to social, political, legal and economic roots of contemporary problems faced by blacks in the United States with applications to the lives of other racial and ethnic minorities in the Americas and in other societies.

Restricted to HONR students only.

0103	Jonathan England TuTh 11:00am - 12:15pm	Seats (Total: 5) HBK 0105
0104	Jonathan England TuTh 12:30pm - 1:45pm	Seats (Total: 5) TYD 2108

AASP101 **Public Policy and the Black Community**

Credits: 3 | Grading Method: Regular, Pass-Fail, Audit | CORE: SB | General Education: DSHS

Formerly: AASP300.

The impact of public policies on the black community and the role of the policy process in affecting the social, economic and political well-being of minorities. Particular attention given to the post-1960 to present era.

0101	Jonathan England TuTh 9:30am - 10:45am	Seats (Total: 32) WDS 1114

AASP200 **African Civilization**

Credits: 3 | Grading Method: Regular, Pass-Fail, Audit | CORE: HO | General Education: DSHU

A survey of African civilizations from 4500 B.C. to present. Analysis of traditional social systems. Discussion of the impact of European colonization on these civilizations. Analysis of the influence of traditional African social systems on modern African institutions as well as discussion of contemporary processes of Africanization.

0101	George Kintiba MW 11:00am - 12:15pm	Seats (Total: 40) ASY 3207

AASP202 **Black Culture in the United States**

Credits: 3 | Grading Method: Regular, Pass-Fail, Audit | CORE: SH, D | General Education: DSHS, DVUP

The course examines important aspects of African American life and thought which are reflected in African American literature, drama, music and art. Beginning with the cultural heritage of slavery, the course surveys the changing modes of black creative expression from the 19th-century to the present.

0101	Renina Jarmon MWF 11:00am - 11:50am	Seats (Total: 35) TYD 0101

0201	Renina Jarmon MWF 1:00pm - 1:50pm	Seats (Total: 35) SKN 1115
0301	Robert Choflet TuTh 11:00am - 12:15pm	Seats (Total: 30) HBK 0103
0401	Robert Choflet TuTh 2:00pm - 3:15pm	Seats (Total: 35) SYM 0215

AASP202H **Black Culture in the United States**

Credits: 3 | Grading Method: Regular, Pass-Fail, Audit | CORE: SH, D | General Education: DSHS, DVUP

The course examines important aspects of African American life and thought which are reflected in African American literature, drama, music and art. Beginning with the cultural heritage of slavery, the course surveys the changing modes of black creative expression from the 19th-century to the present.

0101	Robert Choflet TuTh 11:00am - 12:15pm	Seats (Total: 5) HBK 0103

AASP211 **Get Out: The Sunken Place of Race Relations in the Post-Racial Era**

Credits: 3 | Grading Method: Regular, Pass-Fail, Audit | General Education: DSHS, DVUP, SCIS

Credit only granted for: AASP298G or AASP211. Formerly: AASP298G.

Prevailing thought suggests that we live in an era that is post-racial, particularly after the election of Barack Obama. Media often serves to drive our assessment of where our nation stands on issues like race, gender and sexuality. This course uses the film Get Out to delve into the production, evolution and significance of race in present day America. The course will engage multiple forms of media to investigate life in "Post-Racial" America, including but not limited to the role of stereotypes, interracial relationships, police-community relations, etc.

0101	Jason Nichols, Jonathan England Tu 3:30pm - 6:00pm	Seats (Total: 120) SHM 2102

AASP297 **Research Methods in African American Studies**

(Perm req)

Credits: 3 | Grading Method: Regular, Pass-Fail, Audit

Prerequisite: AASP101 or AASP202. Restriction: Must be in African American Studies program. Credit only granted for: AASP297 or AASP299R. Formerly: AASP299R.

Introduces African American Studies majors to the basic research skills, methodologies, sources, and repositories for studying African Diaspora. Students will be required to select a research topic, write a research proposal, develop an annotated bibliography, and in the process will be prepared for completing their senior thesis or other significant writing projects necessary to fulfill the requirements of the major.

0101	Sharon Harley TuTh 2:00pm - 3:15pm	Seats (Total: 20) TLF 1102

AASP298A **Special Topics in Afro-American Studies: African-American History, 1865 - Present**

Credits: 3 | Grading Method: Regular, Pass-Fail, Audit | CORE: SH, D | General Education: DSHS

0101	Quincy Mills TuTh 9:30am - 10:45am	Seats (Total: 35) KEY 1117

AASP298B **Constructions of Manhood and Womanhood in the Black Community**

Credits: 3 | Grading Method: Regular, Pass-Fail, Audit | CORE: HO, D | General Education: DSHS, DVUP

Cross-listed with: WMST265.

Investigates the ways that African Americans are represented and constructed in public and private spheres and explores the social constructions and representations of Black manhood and womanhood from various disciplinary perspectives.

0101	Michelle Rowley TuTh 11:00am - 12:15pm	Seats (Total: 40) ARC 1105

AASP298F **Special Topics in African American Studies; Caribbean Film and Literature**

Credits: 3 | Grading Method: Regular, Pass-Fail, Audit

An introductory multi-disciplinary and inter-disciplinary educational experience to explore issues relevant to black life, cultural experiences, and political, economic, and artistic development.

Contact department for information to register for this course.

AASP298L **African-American Literature and Culture**

Credits: 3 | Grading Method: Regular, Pass-Fail, Audit | CORE: HL, D | General Education: DSHU, DVUP

Cross-listed with: ENGL234. Credit only granted for: ENGL234 or AASP298L.

An exploration of the stories black authors tell about themselves, their communities, and the nation as informed by time and place, gender, sexuality, and class. African American perspective themes such as art, childhood, sexuality, marriage, alienation and mortality, as well as representations of slavery, Reconstruction, racial violence and the Nadir, legalized racism and segregation, black patriotism and black ex-patriots, the optimism of integration, and the prospects of a post-racial America.

Cross-listed with ENGL234. Credit granted for AASP298L or ENGL234.

0101	Mike Kolakoski TuTh 12:30pm - 1:45pm	Seats (Total: 30) TWS 0214
0201	Andy Yeh MWF 1:00pm - 1:50pm	Seats (Total: 30) KEY 0125

AASP298Z **Special Topics in African American Studies; Jazz as a Cultural Art Form**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

An introductory multi-disciplinary and inter-disciplinary educational experience to explore issues relevant to black life, cultural experiences, and political, economic, and artistic development.

0101	Ronald Zeigler M 2:00pm - 4:30pm	Seats (Total: 43) NCC 0130

AASP299T **Selected Topics in African American Studies; Elementary Twi II**

Credits: 2 Grading Method: Regular, Pass-Fail, Audit

An introductory multi-disciplinary academic exploration of the cultural, political, and economic issues relevant to Africans and African-Americans.

0101	George Kintiba F 11:00am - 12:40pm	Seats (Total: 25) ASY 3219

AASP310 **African Slave Trade**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Prerequisite: AASP202 or AASP100; or permission of BSOS-African American Studies department. Formerly: AASP311.

The relationship of the slave trade of Africans to the development of British capitalism and its industrial revolution; and to the economic and social development of the Americas.

0101	George Kintiba W 2:00pm - 4:30pm	Seats (Total: 35) PLS 1111

AASP313 **Black Women in United States History**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Restriction: Sophomore standing or higher. Cross-listed with WMST314. Credit only granted for: AASP313 or WMST314.

Black American women's history from slavery to the present. Focused on gaining a fuller understanding of the effect of race, class and gender on the life cycles and multiple roles of Black women as mothers, daughters, wives, workers and social-change agents.

For Spring 2020:Crosslisted with WMST314 and HIST329E; credit will only be granted for AASP313, WMST314, or HIST329E.

0101	Elsa Barkley Brown Tu 4:00pm - 6:30pm	Seats (Total: 35) SKN 1115

AASP360 **Issues in African Development**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Credit only granted for: AASP398D, GEOG398A, GVPT359F, SOCY398Y, or AASP360. Formerly: AASP398D.

An introduction to the study of development on the African continent. Students will have an opportunity to think critically about the ways in which Africa is portrayed in the academic literature, popular press, and media. Issues of focus include population dynamics, gender, health, migration, HIV/AIDS, and globalization with particular attention paid to the role of culture.

0101	Sangeetha Madhavan W 2:00pm - 4:30pm	Seats (Total: 20) KEY 0124

AASP386 **Experiential Learning**

(Perm req)

Credits: 3-6 Grading Method: Regular, Pass-Fail

Restriction: Permission of BSOS-African American Studies department; and junior standing or higher.

0101	Marshal Washington F 2:00pm - 4:30pm	Seats (Total: 10) TLF 1102

AASP395 **Fundamentals of Quantitative Research in Socio-Cultural Perspective**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Restriction: Must be in African American Studies program; and junior standing or higher.

Introduction to quantitative methods for African American Studies majors in the cultural and social analysis concentration. Basics of survey design and experimental design and data analysis and use of statistical software programs.

0101	Cecily Hardaway	Seats (Total: 20)
	TuTh 3:30pm - 4:45pm	TLF 1101

AASP397 **Senior Thesis**

(Perm req)

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Restriction: Permission of BSOS-African American Studies department.

Directed research in African American Studies resulting in the completion and defense of a senior thesis.

Contact department for information to register for this course.

AASP398C **Selected Topics in the African Diaspora**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Analysis of the historical experiences and cultures of Africans in the diaspora.

Cross-listed with ENGL317 and AMST328U. Credit granted for AASP398C, AMST328U or ENGL317.

0101	Gail Upchurch	Seats (Total: 28)
	TuTh 2:00pm - 3:15pm	TWS 0236

AASP398G **Selected Topics in the African Diaspora; Gender, Labor, and Racial Identity in Diaspora Communities**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Analysis of the historical experiences and cultures of Africans in the diaspora.

Cross-listed with AMST328K. Credit only granted for AASP398G or AMST328K .

0101	Sharon Harley	Seats (Total: 20)
	TuTh 11:00am - 12:15pm	WDS 1130

AASP398Q **Selected Topics in the African Diaspora; Black Baltimore in the Post Racial U.S.: African American Urban Culture in the Age of Obama**

Credits: 3 Grading Method: Regular, Pass-Fail

Analysis of the historical experiences and cultures of Africans in the diaspora.

Cross-listed with AMST328M. Credit only granted for AASP398Q or AMST328M .

0101	Robert Choflet	Seats (Total: 35)
	Th 4:00pm - 6:30pm	WDS 1114

AASP398Z **Selected Topics in the African Diaspora; Black Contributions to History**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Analysis of the historical experiences and cultures of Africans in the diaspora.

This course is an in-depth quest of Africa's contributions to humanity in sciences and philosophy from Egyptian antiquity to the scramble of Africa era. It will enlighten students to the undeniable African discoveries in various areas of scholarship and their stolen legacy. It will also allow students to appreciate numerous African unacknowledged achievements and reveal the premises of a new philosophy largely founded on the sciences and scientific experience, which could, perhaps one day, reconcile humanity to itself.

0101	George Kintiba	Seats (Total: 35)
	M 2:00pm - 4:30pm	JMP 1202

AASP399 **Research in African-American Studies**

(Perm req)

Credits: 1-3 Grading Method: Regular, Pass-Fail

African American Studies research labs are the settings in which the most recent scholarly work of each faculty member takes place with the enterprise of conducting and disseminating research. Faculty members operate as the team leader and faculty mentor working with undergraduate students around a specific research topic or project. Students will have the opportunity to assist with reviewing literature, data gathering, data management, coding analysis, and the preparation of conference presentations and scholarly publications while advancing their own scholarship and interests, cultivating integrative skills, and gain training in a specialized aspect of the African American Studies discipline, which may not be otherwise available from other experiences on campus.

0101	Oscar Barbarin Contact instructor or department for details.	Seats (Total: 4)
0102	Jason Nichols Contact instructor or department for details.	Seats (Total: 4)
0201	Caryn Bell Contact instructor or department for details.	Seats (Total: 4)
0202	Robert Choflet Contact instructor or department for details.	Seats (Total: 4)
0301	Angel Dunbar Contact instructor or department for details.	Seats (Total: 4)
0302	Shane Walsh Contact instructor or department for details.	Seats (Total: 4)
0401	Cecily Hardaway Contact instructor or department for details.	Seats (Total: 4)
0501	Sharon Harley Contact instructor or department for details.	Seats (Total: 4)
0601	Sangeetha Madhavan Contact instructor or department for details.	Seats (Total: 4)
0701	Joseph Richardson Contact instructor or department for details.	Seats (Total: 4)
0801	Jonathan England Contact instructor or department for details.	Seats (Total: 4)
0901	George Kintiba Contact instructor or department for details.	Seats (Total: 4)

AASP478B **Humanities Topics in African American Studies; African-American Literature: The Beginning to 1910**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Advanced studies in the humanities, often requiring prerequisites, focusing on the literary, artistic and philosophical contributions of Africans and African Americans.

Cross-listed with ENGL470. Credit granted for either ENGL470 or AASP478B

0101	Edlie Wong	Seats (Total: 22)
	TuTh 11:00am - 12:15pm	TWS 0214

AASP478L **Humanities Topics in African American Studies; Literature and the Shaping of the Caribbean**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Advanced studies in the humanities, often requiring prerequisites, focusing on the literary, artistic and philosophical contributions of Africans and African Americans.

Contact department for information to register for this course.

AASP498E **Special Topics in Black Culture; Emotions and Culture in the African-American Community**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Advanced study of the cultural and historical antecedents of contemporary African and African American society. Emphasis on the social, political, economic and behavioral factors affecting blacks and their communities. Topics vary.

0101	Angel Dunbar	Seats (Total: 25)
	Th 3:30pm - 6:00pm	KEY 1117

AASP498F **Special Topics in Black Culture; Women in Caribbean**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Advanced study of the cultural and historical antecedents of contemporary African and African American society. Emphasis on the social, political, economic and behavioral factors affecting blacks and their communities. Topics vary.

Contact department for information to register for this course.

AASP498G **Special Topics in Black Culture; Black Feminist Science Studies**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Advanced study of the cultural and historical antecedents of contemporary African and African American society. Emphasis on the social, political, economic and behavioral factors affecting blacks and their communities. Topics vary.

We will examine the ways in which scientific knowledge has historically been shaped by cultural ideas of race and gender and how black feminist approaches to science offer alternative modes of knowledge production. We will explore the history of scientific racism, eugenics, the Black Women's Health Imperative, the search for African roots using direct- to-consumer genealogy testing, and contemporary case studies on gendered and racialized medicine in the fields of genomics, pharmacology, assisted reproduction.

0101	Jessica Mathiason	Seats (Total: 30)
	MW 3:30pm - 4:45pm	TYD 0111

AASP498J **Special Topics in Black Culture; Racial Socialization of Children and Adolescents: Theory, Research and Practice**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Advanced study of the cultural and historical antecedents of contemporary African and African American society. Emphasis on the social, political, economic and behavioral factors affecting blacks and their communities. Topics vary.

0101	Angel Dunbar	Seats (Total: 35)
	TuTh 9:30am - 10:45am	JMZ 0118

AASP498P **Special Topics in Black Culture; Urban Problems and Policy Analysis**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Advanced study of the cultural and historical antecedents of contemporary African and African American society. Emphasis on the social, political, economic and behavioral factors affecting blacks and their communities. Topics vary.

SG91	Laszlo Korossy	Seats (Total: 30)
	Tu 9:30am - 12:00pm	BLD2 3062
	Restrictions: Limit to CCJS students at Shady Grove	

AASP499S **Advanced Topics in Public Policy and the Black Community; Place, Segregation and Black Health**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Examination of specific areas of policy development and evaluation in black and other communities. Application of advanced tools of policy analysis, especially quantitative, statistical and micro-economic analysis.

0101	Caryn Bell	Seats (Total: 25)
	MW 10:00am - 11:15am	SQH 1101

AASP499T **Advanced Topics in Public Policy and the Black Community; Race and the Juvenile Justice System: A Contextual Analysis of Structural and Interpersonal Violence**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Examination of specific areas of policy development and evaluation in black and other communities. Application of advanced tools of policy analysis, especially quantitative, statistical and micro-economic analysis.

0101	Joseph Richardson	Seats (Total: 35)
	Tu 4:00pm - 6:30pm	KEY 1117

AAST Asian American Studies Spring 2020

AAST200 **Introduction to Asian American Studies**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit CORE: SB, D General Education: DSHS, DVUP

Cross-listed with: AMST298C. Credit only granted for: AAST200 or AMST298C.

The aggregate experience of Asian Pacific Americans, from developments in the countries of origin to their contemporary issues. The histories of Asian Pacific American groups as well as culture, politics, the media, and stereotypes, viewed from an interdisciplinary perspective.

0101	Terry Park	Seats (Total: 40)
	TuTh 2:00pm - 3:15pm	SQH 1101

AAST201 **Asian American History**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit CORE: SH, D General Education: DSHS, DVUP

Cross-listed with HIST221. Credit only granted for: AAST201 or HIST221.

Introduction to the history of Asian Americans and Asians in the United States and the Americas and to the field of Asian American Studies, from an interdisciplinary perspective. Topics include theories of race and ethnicity; Asian migration and diaspora to the Americas; Asian American work and labor issues; gender, family, and communities; nationalism and nativism, and anti-Asian movements; Asian Americans in World War II, the Cold War, and the issues in the civil rights & post-civil rights era.

0101	Terry Park TuTh 11:00am - 12:15pm	Seats (Total: 60) SQH 1119

AAST233 **Introduction to Asian American Literature**

Credits: 3 | Grading Method: Regular, Pass-Fail, Audit | CORE: HL, D | General Education: DSHU, DVUP

Cross-listed with ENGL233. Credit only granted for: ENGL233 or AAST233.

A survey of Asian American literature with an emphasis on recurrent themes and historical context.

0101	Kerishma Panigrahi TuTh 9:30am - 10:45am	Seats (Total: 30) ASY 3219

AAST378 **Experiential Learning**

(Perm req)

Credits: 3 | Grading Method: Regular, Pass-Fail, Audit

Field experience/internship in professional organizations and appropriate private and governmental agencies serving the Asian American community.

0101	Julie Park Contact instructor or department for details.	Seats (Total: 2)

AAST388 **Independent Research**

(Perm req)

Credits: 1-3 | Grading Method: Regular, Pass-Fail, Audit

Directed, independent study in Asian American Studies resulting in the completion of an original research paper.

Prerequisite: permission of department.

0101	Julie Park Contact instructor or department for details.	Seats (Total: 2)
0201	Terry Park Contact instructor or department for details.	Seats (Total: 2)

AAST398G **Selected Topics in Asian American Studies; Asian American Creative Writing**

Credits: 3 | Grading Method: Regular, Pass-Fail, Audit

Study of a specific theme or issue involving the Asian America experience.

A creative writing workshop for storytellers who are interested in drafting personal narratives, short stories, essays, and lyrics on and off the page. During our time together, we will read and respond to works by Asian American writers and artists of color, we will reflect on their art and craft, and we will commit to our own writing processes- drafting, sharing, workshopping, revising.

0101	Rossina Liu	Seats (Total: 25)
	TuTh 12:30pm - 1:45pm	ASY 3211

AAST398J **Selected Topics in Asian American Studies; New World Arrivals: Literature of Asian American Migration and Diaspora**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Study of a specific theme or issue involving the Asian America experience.

Cross-listed with ENGL349J. Credit granted for AAST398J or ENGL349J.

0101	Edlie Wong	Seats (Total: 28)
	TuTh 2:00pm - 3:15pm	TWS 1107

AAST443 **Asian American Politics**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit General Education: DSHS, DVUP

Cross-listed with: AMST498J. Credit only granted for: AAST498T, AAST443, GVPT368C or AMST 498J. Formerly: AAST498T.

Students will gain a greater understanding of 1)the role of Asian Americans in US politics, 2) the political attitudes and behaviors of Asian Americans and 3)how to conduct research on Asian American politics. Though the class will concentrate on Asian Americans, issues related to Asian American politics will be examined within the larger context of America's multicultural political landscape.

0101	Janelle Wong	Seats (Total: 40)
	MW 11:00am - 12:15pm	TWS 0236

AAST498B **Advanced Topics in Asian American Studies; Urban Demography and Community**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Advanced study of the cultural and historical antecedents of contemporary Asian American society. Emphasis on the social, political, economic, and behavioral factors affecting Asian Americans and their communities.

Microsoft Excel in strongly recommended.

0101	Julie Park	Seats (Total: 20)
	Tu 2:00pm - 3:15pm Th 2:00pm - 3:15pm	SQH 1111 PLS 1129

AAST498K **Advanced Topics in Asian American Studies; Korean American Society and Culture**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Advanced study of the cultural and historical antecedents of contemporary Asian American society. Emphasis on the social, political, economic, and behavioral factors affecting Asian Americans and their communities.

0101	Terry Park	Seats (Total: 20)
	W 5:00pm - 7:30pm	SQH 1103

AAST498M **Asian American Public Policy**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit General Education: DVCC

Cross-listed with: AMST418N. Credit only granted for: AAST498M or AMST418N.

0101	Philip Nash	Seats (Total: 20)
	M 5:00pm - 7:30pm	SQH 1111

AGNR Agriculture and Natural Resources Spring 2020

AGNR301 **Sustainability**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Cross-listed with PLCY301. Credit only granted for: AGNR301, PLCY301 or PUAF301.

Designed for students whose academic majors would be enhanced by the complementary study of a widely shared but hard-to-operationalize aspiration: that present choices should preserve or improve future options rather than foreclose or degrade them. How should we understand sustainability? How might we achieve it? How would we know if we had achieved it? And how could sustainability activists of a rising generation lead by example?

0101	Nathan Hultman	Seats (Total: 169)
	TuTh 3:30pm - 4:45pm	JMZ 0220

AGNR388 **Honors Thesis Research**

(Perm req)

Credits: 3-6

Grading Method: Regular, Pass-Fail

Undergraduate honors thesis research conducted under the direction of an AGNR faculty member in partial fulfillment of the requirements of the College of AGNR Honors Program. The thesis will be defended to a faculty committee.

0101	Evelyn Cooper	Seats (Total: 20)
	Contact instructor or department for details.	

AMSC Applied Mathematics & Scientific Computation Spring 2020

AMSC420 **Mathematical Modeling**

Credits: 3

Grading Method: Regular, Pass-Fail

CORE: CS

Prerequisite: 1 course with a minimum grade of C- from (MATH240, MATH341, MATH461); and 1 course with a minimum grade of C- from (MATH241, MATH340); and 1 course with a minimum grade of C- from (MATH246, MATH341); and minimum grade of C- in STAT400. And 1 course with a minimum grade of C- from (CMSC106, CMSC131); or students who have taken courses with comparable content may contact the department. Cross-listed with MATH420. Credit only granted for: AMSC420 or MATH420.

The course will develop skills in data-driven mathematical modeling through individual and group projects. Emphasis will be placed on both analytical and computational methods, and on effective oral and written presentation of results.

0101	Radu Balan	Seats (Total: 28)
	TuTh 11:00am - 12:15pm	CSI 4122

AMSC460 **Computational Methods**

(Perm req)

Credits: 3

Grading Method: Regular, Pass-Fail, Audit

Prerequisite: 1 course with a minimum grade of C- from (MATH240, MATH461, MATH341); and 1 course with a minimum grade of C- from (MATH340, MATH241); and 1 course with a minimum grade of C- from (CMSC106, CMSC131); and minimum grade of C- in MATH246. Also offered as: CMSC460. Credit only granted for: AMSC460, CMSC460, AMSC466, or CMSC466.

Basic computational methods for interpolation, least squares, approximation, numerical quadrature, numerical solution of polynomial and transcendental equations, systems of linear equations and initial value problems for ordinary differential equations. Emphasis on methods and their computational properties rather than their analytic aspects. Intended primarily for students in the physical and engineering sciences.

0101	Jonathan Rosenberg MWF 10:00am - 10:50am	Seats (Total: 32) CHM 2201
0201	Ruiwen Shu TuTh 9:30am - 10:45am	Seats (Total: 32) PHY 0405
0301	Vladimir Yushutin TuTh 12:30pm - 1:45pm	Seats (Total: 32) MTH 0303
0401	Vladimir Yushutin TuTh 2:00pm - 3:15pm	Seats (Total: 32) PHY 1219

AMSC466 **Introduction to Numerical Analysis I**

(Perm req)

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Prerequisite: 1 course with a minimum grade of C- from (MATH240, MATH461, MATH341); and 1 course with a minimum grade of C- from (MATH340, MATH241); and 1 course with a minimum grade of C- from (CMSC106, CMSC131); and minimum grade of C- in MATH410. Also offered as: CMSC466. Credit only granted for: AMSC460, CMSC460, AMSC466, or CMSC466.

Floating point computations, direct methods for linear systems, interpolation, solution of nonlinear equations.

0101	Maria Cameron TuTh 9:30am - 10:45am	Seats (Total: 25) BPS 1234

AMSC498A **Selected Topics in Applied Mathematics**

(Perm req)

Credits: 1-3 Grading Method: Regular, Pass-Fail, Audit

Topics in applied mathematics of special interest to advanced undergraduate students.

Contact department for information to register for this course.

AMSC661 **Scientific Computing II**

Credits: 3 Grading Method: Regular, Sat-Fail

Prerequisite: Must have knowledge of C or Fortran. And AMSC460 or CMSC460; or (CMSC466 or AMSC466); or (must have knowledge of basic numerical analysis (linear equations, nonlinear equations, integration, interpolation); and permission of instructor). Cross-listed with CMSC66 1. Credit only granted for: AMSC661 or CMSC661.

Fourier and wavelet transform methods, numerical methods for elliptic partial differential equations, numerical linear algebra for sparse matrices. Finite element methods, numerical methods for tiem dependent partia l differential equations. Techniques for scientific computation with an introduction to the theory and software for each topic. Course is part of a two course sequence (660 and 661), but can be taken independently.

0101	Lise-Marie Imbert-Gerard	Seats (Total: 22)
	TuTh 9:30am - 10:45am	PHY 1219

AMSC664 **Advanced Scientific Computing II**

(Perm req)

Credits: 3 Grading Method: Regular, Sat-Fail

Prerequisite: AMSC663 or CMSC663. Restriction: Permission of instructor. Cross-listed with CMSC664. Credit only granted for: AMSC664 or CMSC664.

In the sequence Advanced Scientific Computing I & Advanced Scientific Computing II, (AMSC663/CMSC663 and AMSC664/CMSC664, respectively) students work on a year-long individual project to develop software for a scientific task in a high performance computing environment. Lectures will be given on available computational environments, code development, implementation of parallel algorithms.

0101	Maria Cameron, Jacob Bedrossian	Seats (Total: 20)
	TuTh 11:00am - 12:15pm	ATL 1114

AMSC674 **Partial Differential Equations II**

Credits: 3 Grading Method: Regular, Audit, Sat-Fail

Prerequisite: MATH673 or AMSC673; or permission of instructor. Also offered as: MATH674. Credit only granted for: AMSC674 or MATH674.

Boundary value problems for elliptic partial differential equations via operator-theoretic methods. Hilbert spaces of functions. Duality, weak convergence. Sobolev spaces. Spectral theory of compact operators. Eigenfunction expansions.

Offered Spring only.

0101	Manoussos Grillakis	Seats (Total: 20)
	MWF 10:00am - 10:50am	ITV 1100

AMSC689 **Research Interactions in Applied Mathematics and Scientific Computation**

(Perm req)

Credits: 1-3 Grading Method: Regular, Audit, Sat-Fail

The students participate in a vertically integrated (undergraduate, graduate and/or postdoctoral, faculty) research group. Format varies, but includes regular meetings, readings and presentations of material. See graduate program's online syllabus or contact the graduate program director for more information.

Contact department for information to register for this course.

AMSC715 **Numerical Methods for Evolution Partial Differential Equations**

Credits: 3 Grading Method: Regular, Audit, Sat-Fail

Prerequisite: Permission of instructor; or one graduate level course in partial differential equations or one graduate level course in numerical analysis or scientific computing. Credit only granted for: AMSC612 or AMSC715. Formerly: AMSC612. Additional information: This course continues AMSC 714, but can be taken independently, and is a complement to the graduate courses MATH 673 and MATH 674 in PDEs, AMSC 666 in numerical analysis, and AMSC 660 and AMSC 661 in scientific computing.

Topics include: Heat and wave equations: maximum principle, energy methods and Sobolev spaces, finite difference and finite element methods, von Neumann analysis, stability and error estimates;Linear first order PDEs: upwinding and monotone schemes, finite difference, finite volume, and discontinuous Galerkin methods; Nonlinear conservation laws: weak solutions and entropy conditions,monotone methods.

0101	Darcy Conant, Ricardo Nochetto	Seats (Total: 20)
	TuTh 5:00pm - 6:15pm	MTH 0101

AMSC760 **Applied Statistics Practicum**

(Perm req)

Credits: 3 Grading Method: Regular, Sat-Fail

Prerequisite: Must have completed one year of graduate study in Applied Statistics. Restriction: Must have project proposal approved by SAC coordinator.

A semester long applied applied statistical project (a minimum 10 hours per week or 120 hours in total), in an internship of collaborative research-laboratory setting working on a substantive applied quantitative project with significant statistical content.

0101	Howard Elman	Seats (Total: 10)
	Contact instructor or department for details.	

AMSC762 **Data Analysis Project**

(Perm req)

Credits: 1 Grading Method: Regular, Sat-Fail

Restriction: Permission of CMNS-Applied Mathematics department; and permission of instructor.

This course cannot be used to meet any of the Applied Statistics Area's seminar requirements. Offered yearly, required of and limited to MS non-thesis and doctoral students in Applied Statistics Area, for whom the resulting projects serve as a Qualifying Exam component. After 5-6 lectures or presentations on components of successful data analyses and write-ups, 3-4 sessions will discuss previous student project submissions. The culminating project, to be completed in a two week period between semesters, is an analysis and written report of one of three project choices made available each year to represent a spectrum of realistic applied statistical problems.

0101	Howard Elman	Seats (Total: 20)
	Contact instructor or department for details.	

AMSC764 **Advanced Numerical Optimization**

Credits: 3 Grading Method: Regular, Audit, Sat-Fail

Prerequisite: MATH410; or permission of instructor. Cross-listed with C MSC764. Credit only granted for: AMSC607, AMSC764 or CMSC764. F ormerly: AMSC607.

Modern numerical methods for solving unconstrained and constrained nonlinear optimization problems in finite dimensions. Design of computational algorithms and the analysis of their properties.

0101	Thomas Goldstein	Seats (Total: 100)
	TuTh 11:00am - 12:15pm	EGR 1202

AMSC799 **Master's Thesis Research**

Credits: 1-6 Grading Method: Sat-Fail

Contact department for information to register for this course.

AMSC808A **Advanced Topics in Applied Mathematics**

Credits: 1-3 Grading Method: Regular, Audit, Sat-Fail

Advanced topics of current interest.

Contact department for information to register for this course.

AMSC898 **Pre-Candidacy Research**

Credits: 1-8 Grading Method: Regular, Sat-Fail

Contact department for information to register for this course.

AMSC899 **Doctoral Dissertation Research**

(Perm req)

Credits: 6 Grading Method: Sat-Fail

Contact department for information to register for this course.

AMST American Studies Spring 2020

AMST101 **Introduction American Studies**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit CORE: HO, D General Education: DSHU, DVUP

Credit only granted for: AMST101 or AMST201. Formerly: AMST201.

Introduces students to the interdisciplinary field of American Studies by examining concepts such as culture, identity, cultural practices, and globalization, as well as theories underlying these concepts. Engages key themes, especially constructions of difference and identity, cultures of everyday life, and America and the world.

0101	Perla Guerrero MW 11:00am - 11:50am F 10:00am - 10:50am	Seats (Total: 20) TWS 1100 TWS 0328	Discussion
0102	Perla Guerrero MW 11:00am - 11:50am F 11:00am - 11:50am	Seats (Total: 20) TWS 1100 TWS 0134	Discussion
0103	Perla Guerrero MW 11:00am - 11:50am F 12:00pm - 12:50pm	Seats (Total: 20) TWS 1100 TWS 0328	Discussion
0104	Perla Guerrero MW 11:00am - 11:50am F 10:00am - 10:50am	Seats (Total: 20) TWS 1100 TWS 0134	Discussion

AMST202 **Cultures of Everyday Life in America**

Credits: 3 | Grading Method: Regular, Pass-Fail, Audit | CORE: SH | General Education: DSHS

Examine the structures and patterns of everyday life in the U.S., utilizing methods such as ethnography, oral history, survey research, and textual, visual, and material cultural analysis.

0101	Adelaida Shelley TuTh 12:30pm - 1:45pm	Seats (Total: 25) HBK 0125

AMST203 **Popular Culture in America**

Credits: 3 | Grading Method: Regular, Pass-Fail, Audit | CORE: HO | General Education: DSHU, DVUP

An introduction to American popular culture, its historical development, and its role as a reflection of and influence on our culture and society.

0101	Yvonne Bramble MWF 11:00am - 11:50am	Seats (Total: 25) SQH 2120
0102	Hazim Abdullah-Smith TuTh 11:00am - 12:15pm	Seats (Total: 25) TWS 0328

AMST205 **Material Aspects of American Life**

Credits: 3 | Grading Method: Regular, Pass-Fail, Audit | CORE: HA | General Education: DSHU, DVUP

Historical survey of American material culture. Ways of describing and interpreting accumulated material evidence (e.g., buildings, town plans) introduced by stressing relationship between artifact and culture.

0101	Wanda Hernández TuTh 9:30am - 10:45am	Seats (Total: 25) JMZ 2207

AMST210 **Introduction to Ethnography**

Credits: 3 | Grading Method: Regular, Pass-Fail | General Education: DSSP

A qualitative research method course used to study social worlds communities, cultures, institutions, and other social groups from the perspectives of the people who inhabit those social worlds. Ethnographic research involves understanding cultural traditions from an insider's perspective by studying the everyday lives of people steeped in those traditions.

0101	Asim Ali TuTh 12:30pm - 1:45pm	Seats (Total: 20) TWS 0134

AMST212 **Diversity in American Culture**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Exploration of the role of diversity in the shaping of American culture. Special emphasis will be placed on the multicultural origins of American popular and material culture, such as foodways and entertainment, and on the experience of "Americanization."

0101	Bayley Marquez TuTh 11:00am - 12:15pm	Seats (Total: 25) TWS 0236

AMST289A **Shifting Sands: Constructing Cultural Mainstreams and Margins in the U.S.**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit CORE: HO, D General Education: DSHS, DSHU, DVUP, SCIS

0101	Nancy Mirabal MW 10:00am - 10:50am M 11:00am - 11:50am	Seats (Total: 15) TYD 1102 TWS 0328	Discussion
0102	Nancy Mirabal MW 10:00am - 10:50am M 12:00pm - 12:50pm	Seats (Total: 15) TYD 1102 TWS 0328	Discussion
0103	Nancy Mirabal MW 10:00am - 10:50am W 1:00pm - 1:50pm	Seats (Total: 15) TYD 1102 TWS 0328	Discussion
0104	Nancy Mirabal MW 10:00am - 10:50am W 12:00pm - 12:50pm	Seats (Total: 15) TYD 1102 TWS 0328	Discussion

AMST298C **Introduction to Asian American Studies**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit CORE: SB, D General Education: DSHS, DVUP

Cross-listed with: AAST200. Credit only granted for: AAST200 or AMST298C.

The aggregate experience of Asian Pacific Americans, from developments in the countries of origin to their contemporary issues. The histories of Asian Pacific American groups as well as culture, politics, the media, and stereotypes, viewed from an interdisciplinary perspective.

0101	Terry Park	Seats (Total: 40)
	TuTh 2:00pm - 3:15pm	SQH 1101

AMST328K **Perspectives on Identity and Culture; Gender, Labor, and Racial Identity in Diaspora Communities**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Analysis of the cultural aspect of identity formation and the role of individual or community identities in cultural production. Examination of cultural texts such as film, literature, fashion, artifacts, archival records, architecture, monuments, sports, and paintings.

Cross-listed with AASP398G. Credit only granted for AASP398G or AMST328K .

0101	Sharon Harley	Seats (Total: 20)
	TuTh 11:00am - 12:15pm	WDS 1130

AMST328M **Perspectives on Identity and Culture; Black Baltimore in the Post Racial U.S.: African American Urban Culture in the Age of Obama**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Analysis of the cultural aspect of identity formation and the role of individual or community identities in cultural production. Examination of cultural texts such as film, literature, fashion, artifacts, archival records, architecture, monuments, sports, and paintings.

Cross-listed with AASP398Q. Credit only granted for AASP398Q or AMST328M .

0101	Robert Choflet	Seats (Total: 35)
	Th 4:00pm - 6:30pm	WDS 1114

AMST328N **Perspectives on Identity and Culture; Introduction to Native American Studies**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Analysis of the cultural aspect of identity formation and the role of individual or community identities in cultural production. Examination of cultural texts such as film, literature, fashion, artifacts, archival records, architecture, monuments, sports, and paintings.

Jointly offered with ANTH468F and RELS319N. Credit granted for AMST328N, ANTH468F or RELS319N.

0101	Bayley Marquez TuTh 2:00pm - 3:15pm	Seats (Total: 25) TWS 0134

AMST328Q **Perspectives on Identity and Culture; Social Innovation, Change, and Justice: Do Good Now**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Analysis of the cultural aspect of identity formation and the role of individual or community identities in cultural production. Examination of cultural texts such as film, literature, fashion, artifacts, archival records, architecture, monuments, sports, and paintings.

Credit only granted for AMST 328Q, ARHU 380, BSOS 388B, or PLCY388D.

0101	T'Sey-Haye Preaster W 3:00pm - 5:30pm	Seats (Total: 15) TWS 0328

AMST328U **Perspectives on Identity and Culture; African American Literature**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Analysis of the cultural aspect of identity formation and the role of individual or community identities in cultural production. Examination of cultural texts such as film, literature, fashion, artifacts, archival records, architecture, monuments, sports, and paintings.

Cross-listed with AASP398C and ENGL317. Credit granted for AASP398C, AMST328U, or ENGL317.

0101	Gail Upchurch TuTh 2:00pm - 3:15pm	Seats (Total: 28) TWS 0236

AMST328Y **Perspectives on Identity and Culture; The Lion and the Man: Frederick Douglass's Life and Times**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Analysis of the cultural aspect of identity formation and the role of individual or community identities in cultural production. Examination of cultural texts such as film, literature, fashion, artifacts, archival records, architecture, monuments, sports, and paintings.

Cross-listed with HIST319I. Credit granted for AMST328Y or HIST319I.

0101	Christopher Bonner MW 2:00pm - 3:15pm	Seats (Total: 40) KEY 0126

AMST340 **Introduction to History, Theories and Methods in American Studies**

Credits: 3 Grading Method: Regular, Pass-Fail

Prerequisite: Must have completed AMST201; and 2 courses in AMST. Restriction: Must be in American Studies program; and sophomore standing or higher.

Introduction to the process of interdisciplinary research, including research literatures, questions, first-hand sources and library and analytic methods in American Studies. Each student will craft a prospectus for original research.

0101	La Marr Bruce MW 2:00pm - 3:15pm	Seats (Total: 25) TWS 0134

AMST386 **Experiential Learning**

(Perm req)

Credits: 3-6 Grading Method: Regular, Pass-Fail

Restriction: Permission of ARHU-American Studies department; and junior standing or higher.

0101	Asim Ali Contact instructor or department for details.	Seats (Total: 5)
1501	Asim Ali Contact instructor or department for details.	Seats (Total: 5)

AMST388 **Honors Thesis**

(Perm req)

Credits: 3 Grading Method: Regular, Pass-Fail

Individual research, thesis and oral defense. The research project will be conducted under the supervision of a faculty member.

Contact department for information to register for this course.

AMST398 **Independent Studies**

(Perm req)

Credits: 1-3 Grading Method: Regular, Pass-Fail

Provides the student with the opportunity to pursue independent, interdisciplinary research and reading in specific areas of American culture studies.

Contact department for information to register for this course.

AMST418H **Cultural Themes in America; Cultural Themes in America-Honors**

(Perm req)

Credits: 3 Grading Method: Regular, Pass-Fail

Examination of structure and development of American culture through themes such as "growing up American," "culture and mental disorders," "race," "ethnicity," "regionalism," "landscape," and "humor."

Prerequisite: At least three credit hours of prior coursework in AMST.

Contact department for information to register for this course.

AMST418K **Film and American Landscape**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit , D General Education: DSHU, DVUP

0101	Susan Pramschufer TuTh 9:30am - 10:45am	Seats (Total: 20) TWS 1320

AMST418N **Asian American Public Policy**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit General Education: DVCC

Cross-listed with: AAST498M. Credit only granted for: AAST498M or AMST418N.

0101	Philip Nash M 5:00pm - 7:30pm	Seats (Total: 20) SQH 1111

AMST450 **Seminar in American Studies**

(Perm req)

Credits: 3 Grading Method: Regular, Pass-Fail CORE: CS General Education: DSSP

Prerequisite: AMST201 and AMST340; and 1 course in AMST. Restriction: Senior standing; and must be in American Studies program.

Developments in theories and methods of American Studies scholarship, with emphasis upon interaction between the humanities and the social sciences in the process of cultural analysis and evaluation.

0101	Robert Chester TuTh 11:00am - 12:15pm	Seats (Total: 15) TWS 0330
0201	Janelle Wong MW 2:00pm - 3:15pm	Seats (Total: 15) TWS 0330

AMST498J **Asian American Politics**

Credits: 3 | Grading Method: Regular, Pass-Fail | General Education: DSHS, DVUP

Cross-listed with: AAST443. Credit only granted for: AAST498T, AAST443, GVPT368C or AMST 498J. Formerly: AAST498T.

Students will gain a greater understanding of 1)the role of Asian Americans in US politics, 2) the political attitudes and behaviors of Asian Americans and 3)how to conduct research on Asian American politics. Though the class will concentrate on Asian Americans, issues related to Asian American politics will be examined within the larger context of America's multicultural political landscape.

0101	Janelle Wong MW 11:00am - 12:15pm	Seats (Total: 40) TWS 0236

AMST498K **Special Topics in American Studies; Indigenous Thought in the Americas**

Credits: 3 | Grading Method: Regular, Pass-Fail

Topics of special interest.

Cross-listed with RELS419B. Credit only granted for: AMST498K or RELS419B. Relying exclusively upon indigenous authors, this course examines the philosophical-religious-intellectual views of the indigenous peoples of what Europeans call the New World -- and what indigenous peoples variously call "Abya Yala,""Anahuac,""Turtle Island," and "Mapu". We examine a variety of topics including: what it is like to be discovered, anthropologically studied, and scientifically objectified; genocide of native peoples; destruction and commodification of native cultures; internal colonialism; globalization; religion; philosophy; environmentalism; and the ethics of sports mascots. Authors will include Vine Deloria, Jr., Leroy Little Bear, V.F. Cordova, Huanani-Kay Trask, Evo Morales, Fausto Reinaga, George Tinker, Anne Waters, Kyle Powys Whyte, Brian Yazzie Burkhart, and Winona LaDuke (among others).

0101	James Maffie TuTh 11:00am - 12:15pm	Seats (Total: 25) SQH 2120

AMST498M **Special Topics in American Studies; Latinas/os and U.S. Popular Culture**

Credits: 3

Grading Method: Regular, Pass-Fail

Topics of special interest.

0101	Robert Chester	Seats (Total: 25)
	TuTh 2:00pm - 3:15pm	TWS 0328

AMST498N **Special Topics in American Studies; Citizens, Refugees, and Immigrants** **&**

Credits: 3

Grading Method: Regular, Pass-Fail

Topics of special interest.

0101	Perla Guerrero	Seats (Total: 25)
	MW 2:00pm - 3:15pm	TWS 1106

AMST498V **Special Topics in American Studies; Sex and the City**

Credits: 3

Grading Method: Regular, Pass-Fail

Topics of special interest.

Cross-listed with LGBT448C. Credit only granted for AMST498V or LGBT448C.

0101	Christina Hanhardt	Seats (Total: 25)
	MWF 2:00pm - 2:50pm	KEY 0116

AMST602 **Interdisciplinary Research Methods and Bibliographic Instruction**

Credits: 3

Grading Method: Regular, Audit, Sat-Fail

Advanced instruction interdisciplinary research strategies, bibliography, and the structure of systems of scholarly communication in the fields and subfields of American Studies.

0101	Mary Sies	Seats (Total: 15)
	M 4:00pm - 6:40pm	TWS 0330

AMST603 **Current Approaches to American Studies**

Credits: 3

Grading Method: Regular, Audit, Sat-Fail

Restriction: Must be in one of the following programs (American Studies (Master's); American Studies (Doctoral)) . Or permission of ARHU-American Studies department; and permission of instructor.

Builds on AMST601 and explores contemporary literature, theory, and intellectual issues in American Studies.

0101	La Marr Bruce	Seats (Total: 15)
	W 4:00pm - 6:40pm	TWS 0134

AMST629U **Seminar in American Studies; Introduction to Digital Studies in the Arts and Humanities**

Credits: 3 Grading Method: Regular, Audit, Sat-Fail

Cross-listed with MITH610. Credit granted for AMST629U or MITH610. Digital Studies is an interdisciplinary approach to scholarship and teaching that combines the critical study of new forms of digital media, culture, and identity with creative practices and the applicati onof computational tools to areas of humanistic study. While it is often hands-on or applied, Digital Studies also demands approaches that are primarily critical, theoretical, speculative, or experimental- imaginative-in nature. Broadly speaking then, Digital Studies is a response to the widespread influence of digital media across nearly every aspect of contemporary life; more specifically, it recognizes that teaching, research, and scholarship in the arts and humanities cannot and will not remain isolated from the networks, platforms, and media providers all around us. This course is designed to introduce yo u to several different (and divergent) topics and practices in this diverse, complex, and rapidly changing area.

0101	Jason Farman	Seats (Total: 15)
	Th 4:00pm - 6:40pm	TWS 0134

AMST698 **Directed Readings in American Studies**

(Perm req)

Credits: 3 Grading Method: Regular, Sat-Fail

This course is designed to provide students with the opportunity to pursue independent, interdisciplinary research and reading in specific aspects of American culture under the supervision of a faculty member.

Contact department for information to register for this course.

AMST798 **Non-Thesis Research**

Credits: 1-3 Grading Method: Regular, Audit, Sat-Fail

Contact department for information to register for this course.

AMST799 **Master's Thesis Research**

Credits: 1-6 Grading Method: Sat-Fail

Contact department for information to register for this course.

AMST856 **Museum Research Seminar**

Credits: 3 Grading Method: Regular, Audit, Sat-Fail

Prerequisite: AMST655, ANTH655, or HIST610. Cross-listed with ANTH856, HIST810. Credit only granted for: AMST856, ANTH856, or HIST810.

A research seminar focusing on the practice and presentation of cultural and historical scholarship in museums and historical sites. Students will complete an original research project on the challenges and opportunities of public exhibition and interpretation of cultural and historical research.

0101	Henry Gregory	Seats (Total: 15)
	W 7:15pm - 10:00pm	WDS 1130

AMST857 **Museum Scholarship Practicum**

(Perm req)

Credits: 3-6 Grading Method: Regular, Sat-Fail

Prerequisite: AMST856, ANTH856, or HIST810. Restriction: Permission of Museum Scholarship Program required. Cross-listed with ANTH857, HIST811. Credit only granted for: AMST857, ANTH857, or HIST811.

Students devise and carry out a research program using the collections at the Smithsonian Institution or some other cooperating museum, working under joint supervision of a museum professional and a university faculty member.

0401	Mary Sies	Seats (Total: 2)
	Contact instructor or department for details.	

AMST878A **American Studies Pedagogy Mentoring; Mentoring for First Year Teaching in American Studies**

Credits: 1-3 Grading Method: Sat-Fail, Audit

This course provides graduate teaching assistants with a structured approach to pedagogical content, techniques, and collaborative practices that they learn and then can use throughout their careers. It also commits a core faculty member to teaching pedagogy and makes it possible for the course to become a formal part of one's load.

0101	Jan Padios	Seats (Total: 5)
	Contact instructor or department for details.	

AMST878B **American Studies Pedagogy Mentoring; Mentoring for Second Year Teaching in American Studies**

Credits: 1-3 Grading Method: Sat-Fail, Audit

This course provides graduate teaching assistants with a structured approach to pedagogical content, techniques, and collaborative practices that they learn and then can use throughout their careers. It also commits a core faculty member to teaching pedagogy and makes it possible for the course to become a formal part of one's load.

0101	Jan Padios	Seats (Total: 5)
	Contact instructor or department for details.	

AMST878C **American Studies Pedagogy Mentoring; Mentoring for Third Year Teaching in American Studies**

Credits: 1-3 Grading Method: Sat-Fail, Audit

This course provides graduate teaching assistants with a structured approach to pedagogical content, techniques, and collaborative practices that they learn and then can use throughout their careers. It also commits a core faculty member to teaching pedagogy and makes it possible for the course to become a formal part of one's load.

0101	Jan Padios	Seats (Total: 5)
	Contact instructor or department for details.	

AMST898 **Pre-Candidacy Research**

Credits: 1-8 Grading Method: Regular, Sat-Fail

Contact department for information to register for this course.

AMST899 **Doctoral Dissertation Research**

(Perm req)

Credits: 6 Grading Method: Sat-Fail

Contact department for information to register for this course.

ANSC Animal Science Spring 2020

The following courses may involve the use of animals. Students who are concerned about the use of animals in teaching have the responsibility to contact the instructor, prior to course enrollment, to determine whether animals are to be used in the course, whether class exercises involving animals are optional or required and what alternatives, if any, are available.

ANSC101 **Principles of Animal Science**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

A comprehensive overview of the application of biology in the care and use of animals that live in close association with humans including food animals, companion animals, lab animals, zoo animals, etc. The role of science in modern food production using animals will be emphasized.

0101	Sarah Balcom	Seats (Total: 80)
	MWF 1:00pm - 1:50pm	ANS 0408

ANSC103 **Principles of Animal Science Laboratory**

Credits: 1 Grading Method: Regular, Pass-Fail

Prerequisite: Must have completed or be concurrently enrolled in ANSC101. Restriction: Must be in one of the following programs (Environmental Sci & Pol-Environment & Agriculture; Agricultural and Veterinary Medicine; Agricultural Science and Technology) ; or must be in a major within the AGNR-Animal & Avian Sciences department; or permission of department required for students in other College of AGNR programs.

Laboratory focusing on the application of biology in the care and use of animals that live in close association with humans including food animals, companion animals, lab animals, zoo animals, etc. Labs will include live animals. Offered in fall semester only.

Students must pay a $50.00 laboratory materials fee.

0101	Genevieve Pelletier, Megan McLean	Seats (Total: 20)
	M 10:00am - 11:50am	ANS 0108

ANSC115 **Careers in the Animal Sciences**

Credits: 1 Grading Method: Regular, Pass-Fail, Audit

Prerequisite: ANSC101 and ANSC103.

Discussion of current employment opportunities in Animal Science, primarily by invited speakers. In addition, students will have the opportunity to prepare resumes and improve oral presentation skills while working with their peers.

0101	Robert Peters	Seats (Total: 30)
	M 3:00pm - 3:50pm	ANS 0412

ANSC121 **Introduction to Livestock Judging**

Credits: 2

Grading Method: Regular, Pass-Fail, Audit

Students will establish a working understanding of the structural anatomy of several livestock species- cattle, sheep, pigs, goats- and their individual importance in the Agricultural Industry, while gaining the ability to evaluate these species for soundness and show-ring appeal. Additionally, the class aims to provide students with confidence in justifying decisions of based on their evaluations and gain skills in public speaking. The course will include two weekend field trips to farms in order to practice judging skills.

0101	Racheal Slattery	Seats (Total: 10)	
	M 2:00pm - 2:50pm	ANS 0402	
	W 2:00pm - 3:50pm	ANS 0402	Lab

ANSC210 Veterinary Terminology

Credits: 1

Grading Method: Regular, Pass-Fail, Audit

Prerequisite: ANSC204 and ANSC205. Credit only granted for: The course is offered on-line through a series of self-paced modules on ELMS..

Students will learn terminology related to the clinical practice of small and large animal medicine including medical record terminology and a systems-based consideration of common practices and pathologies.

0101	Sarah Balcom	Seats (Total: 80)
	Class time/details on ELMs	ONLINE

ANSC212 Applied Animal Physiology

Credits: 3

Grading Method: Regular, Pass-Fail, Audit

Prerequisite: ANSC211; or (ANSC204 and ANSC205); or students who have taken courses with comparable content may contact the department.

The physiology of domesticated animals with emphasis on functions related to homeostasis, and the physiological adaptation to environmental influences.

0101	Monica VanKlompenberg	Seats (Total: 96)
	MWF 1:00pm - 1:50pm	IRB 1116

ANSC214 Applied Animal Physiology Laboratory

Credits: 1

Grading Method: Regular, Pass-Fail

Prerequisite: Must have completed or be concurrently enrolled in ANSC212.

Application of physiological laboratory techniques to domestic and lab animals.

Students must pay a $50.00 lab materials fee.

0101	Monica VanKlompenberg M 2:00pm - 5:00pm	Seats (Total: 20) ANS 0108	Lab
0102	Monica VanKlompenberg Tu 9:00am - 11:50am	Seats (Total: 20) ANS 0108	Lab
0103	Monica VanKlompenberg W 2:00pm - 5:00pm	Seats (Total: 20) ANS 0108	Lab
0104	Monica VanKlompenberg Th 9:00am - 11:50am	Seats (Total: 20) ANS 0108	Lab
0105	Monica VanKlompenberg F 2:00pm - 5:00pm	Seats (Total: 20) ANS 0108	Lab

ANSC227 **Eating with Eyes Wide Open**

Credits: 3	Grading Method: Regular, Pass-Fail, Audit	General Education: DSNS, SCIS

Students will investigate the tension that is created by trade-offs that, knowingly or not, are made by consumers relative to agricultural production methods and dietary choices. Course will inform students about their food supply so they can make informed decisions and practice intentional or informed eating.

0101	R Apter MW 9:00am - 9:50am M 11:00am - 12:50pm	Seats (Total: 20) ANS 0408 ANS 1144	Lab
0102	R Apter MW 9:00am - 9:50am W 11:00am - 12:50pm	Seats (Total: 20) ANS 0408 ANS 1144	Lab
0103	R Apter MW 9:00am - 9:50am F 9:00am - 10:50am	Seats (Total: 20) ANS 0408 ANS 1144	Lab

ANSC237 **Equine Reproductive Management**

Credits: 3 Grading Method: Regular, Pass-Fail

Prerequisite: ANSC232. Credit only granted for: ANSC237 or INAG233. Additional information: Course participation will include nightly checks of mares in the two weeks prior to parturition, and out-of-class time imprinting and working with newborn foals.

Students learn the fundamental skills necessary to manage an equine breeding herd including anatomy/physiology of genital tracts, estrus detection, manipulation of the estrous cycle, semen collection, pre- and post-foaling techniques, infertility, and health and nutrition of the mare, foal and stallion. Students will be required to spend ~ 30 hours during the spring semester caring for broodmares and foals and attending at least one foaling and estrous detection checks on broodmares outside of regularly scheduled class time.

Students must pay a $50.00 lab materials fee.

0101	Amy Burk MWF 12:00pm - 12:50pm	Seats (Total: 16) ANS 0412	

ANSC245 **Sheep Management**

Credits: 3 Grading Method: Regular, Pass-Fail

Prerequisite: Minimum grade of C- in ANSC101 and ANSC103. Restriction: Must be in one of the following programs (Animal Sciences: Animal Care & Management; Animal Sciences: Equine Studies; Animal Sciences: Laboratory Animal Care; Animal Sciences: Sciences/Preprofessional; Animal Sciences: Animal Biotechnology; Agricultural and Veterinary Medicine). Credit only granted for: ANSC235 or ANSC245.

Popularly known as "Lamb Watch", this course provides an immersion environment for learning and understanding pre- and post-natal care of ewes and lambs through direct, hands-on involvement in the birthing process and care of the neonate through weaning on the campus farm. Course topics include zoonoses, basic reproductive physiology of the sheep, normal and abnormal parturition, management of lambs, qualitative assessment, breeding principles, nutrition, products and their marketing, and ram management.

Students must pay a $50.00 laboratory materials fee.

0101	Sarah Balcom MW 3:00pm - 3:50pm M 1:00pm - 2:50pm	Seats (Total: 16) ANS 0408 Location: TBA	 Lab
0102	Sarah Balcom MW 3:00pm - 3:50pm Th 1:00pm - 2:50pm	Seats (Total: 16) ANS 0408 Location: TBA	 Lab

ANSC260 **Laboratory Animal Management**

Credits: 3 Grading Method: Regular, Pass-Fail

Prerequisite: ANSC101 and ANSC103. Credit only granted for: ANSC260 or ANSC413. Formerly: ANSC413.

A comprehensive course in care and management of laboratory animals. Topics covered include regulations governing the use of animals in research, laboratory animal facility design and management, animal research models, animal health management and husbandry, responsibilities of lab animal workers and career opportunities in the field. Hands-on labs focus on lab animal handling, husbandry and common techniques. Field trips are required, and you must attend a minimum number of field trips which will be held during lab time.

Students must pay a $50.00 lab materials fee.

0101	Angela Black MW 10:00am - 10:50am F 8:00am - 12:00pm	Seats (Total: 20) ANS 0412 Location: TBA	Lab

ANSC262 **Commercial Poultry Management**

Credits: 3 Grading Method: Regular, Pass-Fail

Prerequisite: ANSC101 and ANSC103.

Theory and science of rearing poultry and marketing poultry meat and eggs in the commercial sector. Includes current issues, organization of the industry, as well as fundamental biology of the domestic chicken. Students will help raise a flock of broiler chickens. Field trips to commercial poultry operations are required.

Students must pay a $50.00 laboratory materials fee.

0101	Shawna Weimer MW 11:00am - 11:50am Th 1:00pm - 2:50pm	Seats (Total: 20) ANS 0402 ANS 1144	Lab

ANSC282 **Grazing Animal Management**

Credits: 3 Grading Method: Regular, Pass-Fail

Prerequisite: ANSC101 and ANSC103; or permission of instructor. Credit only granted for: ANSC110, ANSC282, or INAG116. Formerly: ANSC110.

For students interested in acquiring knowledge and skills in pasture management, grazing management of livestock (large and small ruminants, horses), and hay production. Fundamental information regarding best management practices for soils, plants, and grazing livestock will be covered

0101	R Apter TuTh 11:00am - 12:15pm	Seats (Total: 33) ANS 1144	

ANSC315 **Applied Animal Nutrition**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Prerequisite: ANSC314.

Elements of nutrition, source characteristics and adaptability of various feedstuffs to several classes of livestock. A study of the composition of feeds, nutrient requirements and computerized formulation of economic diets and rations for livestock.

Students must pay a $50.00 lab materials fee.

0101	Richard Kohn TuTh 12:30pm - 1:45pm Th 8:00am - 8:50am	Seats (Total: 23) ANS 0408 ANS 1144	 Discussion
0102	Richard Kohn TuTh 12:30pm - 1:45pm Th 9:00am - 9:50am	Seats (Total: 23) ANS 0408 ANS 1144	 Discussion
0103	Richard Kohn TuTh 12:30pm - 1:45pm W 9:00am - 9:50am	Seats (Total: 23) ANS 0408 ANS 1144	 Discussion

ANSC327 **Molecular and Quantitative Animal Genetics**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Prerequisite: ANSC101, CHEM131, and ANSC103. And BSCI105; or (BSCI170 and BSCI171).

Classical, molecular, and population genetics with specific emphasis on animal systems will be covered. Also, disseminate information on molecular approaches for manipulating genetics at the whole animal level (transgenic and cloning). Other model organisms will be discussed to provide a conceptual framework.

0101	Iqbal Hamza, Li Ma	Seats (Total: 80)	
	TuTh 11:00am - 12:15pm	ANS 0408	

ANSC330 **Equine Science**

Credits: 3 Grading Method: Regular, Pass-Fail

Prerequisite: ANSC232; or permission of instructor. Recommended: ANSC212 and ANSC211. Credit only granted for: ANSC230 or ANSC330. Formerly: ANSC230.

Scientific principles of horse behavior, anatomy, physiology, locomotion, nutrition, reproduction, growth, health and disease as applied to horses are emphasized.

Students must pay a $50.00 laboratory materials fee.

0101	Amy Burk	Seats (Total: 24)	
	MW 2:00pm - 2:50pm	ANS 0412	
	F 2:00pm - 3:50pm	ANS 1144	Lab

ANSC359 **Internship Experience in Animal and Avian Sciences**

(Perm req)

Credits: 3-6 Grading Method: Regular, Pass-Fail General Education: DSSP

Experiential learning is a key component in an animal science education. Through the internship program, you will have the opportunity to develop your expertise in a specific species and discipline within the animal science curriculum. You will arrange an on- or off-campus internship experience related to animal science. You will spend a specified number of hours at the internship site each week and attend biweekly classroom sessions where we will discuss how the study of animal science fits into your specific internship experience as well as understand how to achieve each of the course learning outcomes.

Prerequisite: ANSC220, ANSC232, ANSC242, ANSC250, ANSC255, ANSC260, or ANSC262. Restriction: Must be in a major within the AGNR-Animal & Avian Sciences department; and permission of instructor.

0101	Monica VanKlompenberg	Seats (Total: 20)
	Tu 3:30pm - 5:30pm	ANS 0402

ANSC379 **Animal Science Undergraduate Teaching Assistant Seminar**

(Perm req)

Credits: 2 Grading Method: Regular, Pass-Fail

Seminar course for undergraduate teaching assistants within ANSC.

0101	Sarah Balcom W 12:00pm - 12:50pm Contact instructor or department for details.	Seats (Total: 10) ANS 0467

ANSC388 **Honors Thesis Research**

(Perm req)

Credits: 3-6 Grading Method: Regular, Pass-Fail

Undergraduate honors thesis research conducted under the direction of an AGNR faculty member in partial fulfillment of the requirements of the College of AGNR Honors Program. The thesis will be defended to a faculty committee.

0701	Chad Stahl Contact instructor or department for details.	Seats (Total: 5)
1901	William Stricklin Contact instructor or department for details.	Seats (Total: 5)
2501	Richard Kohn Contact instructor or department for details.	Seats (Total: 5)
4501	Instructor: TBA Contact instructor or department for details.	Seats (Total: 5)
5201	Amy Burk Contact instructor or department for details.	Seats (Total: 5)
7101	Shawna Weimer Contact instructor or department for details.	Seats (Total: 5)

ANSC389 **Experiential Learning**

(Perm req)

Credits: 3-6 Grading Method: Regular, Pass-Fail

Contact department for information to register for this course.

ANSC399 **Special Problems in Animal Science**

(Perm req)

Credits: 1-2 Grading Method: Regular, Pass-Fail, Audit

Work assignments are designed to be proportional to the amount of credit. Students are expected to develop an abstract, fact sheet, manuscript, oral presentation, poster, webpage, journal-log, or other scholarly product associated with their study and/or project.

Contact department for information to register for this course.

ANSC435 **Experimental Embryology**

Credits: 3 | Grading Method: Regular, Pass-Fail, Audit | General Education: DSSP

Prerequisite: ANSC212. Recommended: Completion of one course in reproductive physiology is recommended. Credit only granted for: ANSC435 or ANSC489M. Formerly: ANSC489M.

Experimental approaches to mammalian embryology with emphasis on domestic livestock systems as applied to research and production systems. Lab will include hands-on experiments and demos of in vitro embryo production, embryo splitting, cell injection and nuclear transfer.

Students must pay a $50.00 lab materials fee.

0101	Carol Keefer	Seats (Total: 20)	
	Tu 2:00pm - 3:15pm	ANS 0108	
	Th 2:00pm - 5:00pm	ANS 0108	Lab

ANSC436 **Animal Health Policy and Communication**

Credits: 3 | Grading Method: Regular, Pass-Fail

Recommended: Completion of ANSC225 and ANSC340 recommend. Restriction: Must be in a major within the AGNR-Animal & Avian Sciences department; or permission of AGNR-VA-MD Regional COL Veterinary Med. Credit only granted for: ANSC489A or ANSC436. Formerly: ANSC489A.

Intended for upper level students in Veterinary Medicine or Animal Science as well as other students who are interested in understanding how science and politics interact and influence animal health policy and how veterinarians and animal scientists can effectively communicate science to non-scientists such as legislators and policymakers.

0101	Nathaniel Tablante	Seats (Total: 10)	
	TuTh 9:30am - 10:45am	ANS 0402	

ANSC440 **Zoonotic Diseases and Control**

Credits: 3 | Grading Method: Regular, Pass-Fail, Audit

Prerequisite: BSCI223, ANSC212, ANSC327, BSCI222, BSCI421, or NFSC430; or students who have taken courses with comparable content may contact the department. Credit only granted for: ANSC440 or ANSC489R. Formerly: ANSC489R.

Global perspective of foodborne diseases common to animals and man, specifically those caused by farm animal-originated human pathogens (zoonoses) and their control. A selection of important zoonoses and food safety issues will be specifically covered with an emphasis on the principles of zoonotic disease transmission and control, risk factors to humans, and surveillance methods.

0101	Debabrata Biswas	Seats (Total: 34)
	TuTh 9:30am - 10:45am	ANS 0412

ANSC443 **Physiology of Lactation**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Prerequisite: CHEM231, ANSC212, and CHEM232. Recommended: BCHM463.

A comprehensive survey of lactation in laboratory and domestic animals. Other species are discussed where possible. Emphasis will be placed on physiological aspects of milk synthesis and secretion and on the cellular and molecular biology of mammary gland development.

0101	Monica VanKlompenberg	Seats (Total: 20)
	MWF 9:00am - 9:50am	ANS 0412

ANSC444 **Domestic Animal Endocrinology**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Prerequisite: ANSC212; or permission of instructor. Restriction: Must not have completed ANSC644. Credit only granted for: ANSC489I, ANSC444, or ANSC644. Formerly: ANSC489I.

Current developments in endocrinology as it relates to animals used in the production of food and other products important to the well being of humans will be covered.

0101	Tom Porter	Seats (Total: 22)
	TuTh 2:00pm - 3:15pm	ANS 0402

ANSC453 **Animal Welfare and Bioethics**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Prerequisite: ANSC101 and ANSC103; or BSCI106; or (BSCI160 and BSCI161); or permission of instructor. Restriction: Junior standing or higher.

Ethical concerns related to the use of animals in modern society. Historical and philosophical overview of animal welfare and bioethics. Applied ethical discussions on human/animal interrelationships, physical and genetic manipulation, and other current issues associated with the treatment of animals used in food production, research, zoos, and as pets.

0101	R Apter	Seats (Total: 44)
	TuTh 4:00pm - 5:15pm	ANS 0412

ANSC454 **Nutritional Aspects of Metabolic Disease**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Prerequisite: CHEM131 and ANSC101, or BSCI170; or students who have taken courses with comparable content may contact the department. Credit only granted for: ANSC4890 or ANSC454. Formerly: ANSC489O.

Biochemical and physiological fundamentals of nutrition. Discussion of protein, fat,carbohydrate, minerals and vitamins and their roles and interrelationships innutrition, metabolism and diseases in humans and animals. The course will use recommended texts for foundation material as well as research papers to provide in-depth coverage and illustrate emerging themes in metabolic aspects of nutrition and disease.

0101	Byung-Eun Kim	Seats (Total: 10)
	TuTh 11:00am - 12:15pm	ANS 0402

ANSC489 **Current Topics in Animal Science**

Credits: 1-3 Grading Method: Regular, Pass-Fail, Audit

Examination of current developments in the animal sciences.

Contact department for information to register for this course.

ANSC617 **Quantative Techniques in Physiology and Nutrition**

Credits: 3 Grading Method: Regular, Audit, Sat-Fail

Prerequisite: MATH120; or permission of AGNR-Animal & Avian Sciences department.

Development and evaluation of quantative techniques to explore mechanisims of physiological and nutritional regulation. Kinetic and dynamic models will be emphasized.

0101	Richard Kohn	Seats (Total: 20)
	W 10:00am - 1:00pm	ANS 1408

ANSC627 **Molecular and Quantitative Genetics**

Credits: 3

Grading Method: Regular,
Audit, Sat-Fail

Classical, molecular, and population genetics with specific emphasis on animal systems will be covered. Also, disseminate information on molecular approaches for manipulating genetics at the whole animal level (transgenic and cloning). Other model organisms will be discussed to provide a conceptual framework.

0101	Li Ma, Iqbal Hamza	Seats (Total: 10)	
	TuTh 11:00am - 12:15pm	ANS 0408	

ANSC644 **Molecular and Cellular Endocrinology**

Credits: 3

Grading Method: Regular,
Audit, Sat-Fail

Restriction: Must not have completed ANSC444. Credit only granted for: ANSC444,ANSC489I, ANSC644, or ANSC688I. Formerly: ANSC688I.

A comprehensive course covering the major endocrine systems in animals. Lecture topics include major endocrine axes, hormonal regulation of homeostasis, growth and reproduction, and endocrine mechanisms of action. Advanced concepts in the molecular and cell biology of hormone action and regulation addressed in weekly discussion sessions centered on current research publications in the field of molecular and cellular endocrinology.

0101	Tom Porter	Seats (Total: 10)	
	TuTh 2:00pm - 3:15pm	ANS 0402	
	Th 9:00am - 11:00am	ANS 1408	Discussion

ANSC660 **Poultry Literature**

Credits: 1-4

Grading Method: Regular,
Audit, Sat-Fail

Readings on individual topics are assigned. Written reports required. Methods of analysis and presentation of scientific material are discussed.

Contact department for information to register for this course.

ANSC688J **Special Topics; Zoonotic Diseases and Control**

Credits: 3

Grading Method: Regular,
Audit, Sat-Fail

Lectures, experimental courses, and other special subjects in the fields of animal sciences and veterinary medicine.

Prerequisites: BSCI223; recommended NFSC430; or permission of instructor. Lectures will take a global perspective of foodborne diseases common to animals and man, specifically those caused by farm animal-originated human pathogens (zoonoses) and their control. A selection of important zoonoses and food safety issues will be specifically covered with an emphasis on the principles of zoonotic disease transmission and control, risk factors to humans, and surveillance mehtods.

0101	Debabrata Biswas	Seats (Total: 6)
	TuTh 9:30am - 10:45am	ANS 0412

ANSC688O **Special Topics; Nutritional Aspects of Metabolic Disease**

Credits: 3 Grading Method: Regular, Audit, Sat-Fail

Lectures, experimental courses, and other special subjects in the fields of animal sciences and veterinary medicine.

Prequisite: CHEM131 and ANSC101, BSCI105; or equivalent. Biochemical and physiological fundamentals of nutrition. Discussion of protein, fat, carbohydrate, energy, minerals, and vitamins and their roles and interrelationships in nutrition, metabolism, and diseases in humans and animals. The course will use recommended texts for foundation.

0101	Byung-Eun Kim	Seats (Total: 10)
	TuTh 11:00am - 12:15pm	ANS 0402

ANSC688W **Special Topics; Advanced Animal Welfare**

Credits: 1-4 Grading Method: Regular, Audit, Sat-Fail

Lectures, experimental courses, and other special subjects in the fields of animal sciences and veterinary medicine.

0101	R Apter	Seats (Total: 5)
	TuTh 4:00pm - 5:15pm	ANS 0412

ANSC698C **Seminar; Recent Advances in Animal and Avian Sciences**

Credits: 1 Grading Method: Regular, Audit, Sat-Fail

Students are required to prepare papers based upon current scientific publications relating to animal science, or upon their research work, for presentation before and discussion by the class; (1) recent advances; (2) nutrition; (3) physiology; (4) biochemistry.

0101	Richard Kohn	Seats (Total: 30)
	Tu 3:30pm - 5:30pm	ANS 0408

ANSC699 **Special Problems in Animal Science**

(Perm req)

Credits: 1-2 Grading Method: Regular, Audit, Sat-Fail

Work assigned in proportion to amount of credit. Prerequisite: approval of staff. Problems will be assigned which relate specifically to the character of work the student is pursuing.

Contact department for information to register for this course.

ANSC799 **Master's Thesis Research**

Credits: 1-6 Grading Method: Sat-Fail

Contact department for information to register for this course.

ANSC898 **Pre-Candidacy Research**

Credits: 1-8 Grading Method: Regular, Sat-Fail

Contact department for information to register for this course.

ANSC899 **Doctoral Dissertation Research**

(Perm req)

Credits: 6 Grading Method: Sat-Fail

Contact department for information to register for this course.

ANTH Anthropology Spring 2020

ANTH222 **Introduction to Ecological and Evolutionary Anthropology**

Credits: 4 Grading Method: Regular, Pass-Fail, Audit CORE: LL General Education: DSNL, DVUP

Credit only granted for: ANTH220 or ANTH222.

An introduction to the evolution of human physiology and human behavior, the relationship between hominid and non-hominid primates, and the study of relationships between a population of humans and their biophysical environment.

Students must pay a $40.00 lab materials fee.

0101	Barnet Pavao-Zuckerman TuTh 9:30am - 10:45am M 8:00am - 10:00am	Seats (Total: 20) ATL 2324 WDS 0124C	 Lab
0102	Barnet Pavao-Zuckerman TuTh 9:30am - 10:45am M 11:00am - 1:00pm	Seats (Total: 20) ATL 2324 WDS 0124C	 Lab
0103	Barnet Pavao-Zuckerman TuTh 9:30am - 10:45am M 2:00pm - 4:00pm	Seats (Total: 20) ATL 2324 WDS 0124C	 Lab
0104	Barnet Pavao-Zuckerman TuTh 9:30am - 10:45am W 8:00am - 10:00am	Seats (Total: 20) ATL 2324 WDS 0124C	 Lab
0105	Barnet Pavao-Zuckerman TuTh 9:30am - 10:45am W 11:00am - 1:00pm	Seats (Total: 20) ATL 2324 WDS 0124C	 Lab
0106	Barnet Pavao-Zuckerman TuTh 9:30am - 10:45am W 2:00pm - 4:00pm	Seats (Total: 20) ATL 2324 WDS 0124C	 Lab

ANTH240 **Introduction to Archaeology**

Credits: 3	Grading Method: Regular, Pass-Fail, Audit	CORE: SB, D	General Education: DSHS, DVUP

Exploration of the variety of past human societies and cultures through archaeology, from the emergence of anatomically modern humans to the more recent historical past.

0101	Mark Leone MWF 12:00pm - 12:50pm	Seats (Total: 35) WDS 1114	
0201	Stephen Brighton TuTh 2:00pm - 2:50pm F 1:00pm - 1:50pm	Seats (Total: 25) ATL 1113 TLF 1103	 Discussion
0202	Stephen Brighton TuTh 2:00pm - 2:50pm F 2:00pm - 2:50pm	Seats (Total: 25) ATL 1113 TLF 1103	 Discussion

0203	Stephen Brighton TuTh 2:00pm - 2:50pm F 3:00pm - 3:50pm	Seats (Total: 25) ATL 1113 TLF 1103	Discussion

ANTH242 **Fire, Farming and Climate Change: An Archaeology Take on the History of Human Impacts on our Planet**

Credits: 3 | Grading Method: Regular, Pass-Fail, Audit | General Education: DSHS, SCIS

An examination of why climate changes, the methods for recording climate change, and case studies of the varied responses of past human societies to climate change in different geographic regions and time periods with varying socio-political and economic systems.

0101	George Hambrecht TuTh 11:00am - 12:15pm	Seats (Total: 60) ESJ 1215

ANTH260 **Introduction to Sociocultural Anthropology and Linguistics**

Credits: 3 | Grading Method: Regular, Pass-Fail, Audit | CORE: SB, D | General Education: DSHS, DVUP

Culture and social relationships in a wide variety of settings from small-scale to complex societies. An overview of how anthropology analyzes human behavior. Particular attention to the relationship between language and culture.

0101	Kevin Gibbons TuTh 11:00am - 12:15pm	Seats (Total: 50) TWS 1100

ANTH266 **Changing Climate, Changing Cultures**

Credits: 3 | Grading Method: Regular, Pass-Fail, Audit | CORE: SB | General Education: DSHS, DVCC, SCIS

Explore past, present, and future interactions between humans and climate. Discussions, methods-oriented activities, and case study analyses provide students a foundation for appreciating the role of anthropology in understanding, responding to, and preparing for climate change.

0101	L Jen Shaffer TuTh 9:30am - 10:45am	Seats (Total: 78) ESJ 0215

ANTH267 **Organic, Mechanical, Digital**

Credits: 3 | Grading Method: Regular, Pass-Fail, Audit | General Education: DSHS, SCIS

Beginning in the middle to late 20th century, human organization and experience has increasingly been influenced by digital forms of communication and production. Do these changes make us new types of people and societies? By putting the digital world in the context of the major periods associated with organic and mechanical technology, this course examines who contemporary people are and whether or not they are unique. The answer to this question will focus on how technological changes the individual, social organization and the relationship with the natural world. Sources from historians, anthropologists, sociologists, philosophers, political scientists and ecologists will be used to reconstruct these worlds.

0101	Yancey Orr TuTh 2:00pm - 3:15pm	Seats (Total: 60) SPH 1301	

ANTH298B **Special Topics in Anthropology; Selected Musical Cultures of the World**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Anthropological perspectives on selected topics of broad general interest.

Also offered as MUSC220. For Spring 2020; credit only granted for MUET220, MUSC220, or ANTH298B.

0101	Siv Lie MW 1:00pm - 1:50pm F 12:00pm - 12:50pm	Seats (Total: 20) ASY 2203 PAC 3160	Discussion
0102	Siv Lie MW 1:00pm - 1:50pm F 1:00pm - 1:50pm	Seats (Total: 20) ASY 2203 PAC 3160	Discussion
0103	Siv Lie MW 1:00pm - 1:50pm F 2:00pm - 2:50pm	Seats (Total: 20) ASY 2203 PAC 3160	Discussion
0104	Siv Lie MW 1:00pm - 1:50pm F 9:00am - 9:50am	Seats (Total: 20) ASY 2203 ARC 1125	Discussion
0105	Siv Lie MW 1:00pm - 1:50pm F 10:00am - 10:50am	Seats (Total: 20) ASY 2203 ARC 1123	Discussion

0106	Siv Lie	Seats (Total: 20)	
	MW 1:00pm - 1:50pm F 11:00am - 11:50am	ASY 2203 ARC 1123	Discussion

ANTH305 **Archaeological Methods and Practice**

Credits: 3 | Grading Method: Regular, Pass-Fail | General Education: DSHS

Prerequisite: ANTH240, ARTH200, or CLAS180. Cross-listed with: ARTH305, CLAS305, JWST319Y. Credit only granted for: ANTH305, ARTH305, CLAS305, or JWST319Y.

A team-taught, interdisciplinary course discussing theories, methods, and ethical issues in the practice of archaeology.

0101	Christian Cloke	Seats (Total: 25)
	MW 10:00am - 11:15am	ASY 4213

ANTH310 **Method & Theory in Medical Anthropology and Global Health**

Credits: 3 | Grading Method: Regular, Pass-Fail, Audit | General Education: DSSP, DVUP

Prerequisite: ANTH210. Jointly offered with ANTH665. Credit only grant ed for: ANTH310, ANTH465, or ANTH665. Formerly: ANTH465.

Provides a critical perspective to global health that encompasses key political, economic, and cultural factors associated with the nature and magnitude of global health issues such as HIV/AIDS, tuberculosis and malaria, paying particular attention to how poverty and inequalities within and between societies has accelerated current global health challenges. Introduces students to how medical anthropologists have contributed to the debates surrounding the globalization of health.

Restriction: Must be in Anthropology program; or permission of BSOS Anthropology department.

0101	Thurka Sangaramoorthy	Seats (Total: 20)
	TuTh 11:00am - 12:15pm	WDS 1114

ANTH338B **Special Topics in Study Abroad III; Crossroads: Spain and Immigration**

Credits: 3 | Grading Method: Regular, Pass-Fail, Audit

Special topics course taken as part of an approved study abroad program.

SA18	Natalie Brady	Seats (Total: 0)
	Contact instructor or department for details.	

ANTH340 **Method and Theory in Archaeology**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Prerequisite: ANTH240. Restriction: Must be in Anthropology program; or permission of BSOS-Anthropology department.

Theory, method, and practice which guides modern anthropological archaeology. Includes research design and execution (from survey through excavation and interpretation), the reconstruction of aspects of past cultures, and the understanding of cultural change and meaning.

0101	Stephen Brighton	Seats (Total: 30)
	TuTh 12:30pm - 1:45pm	JMP 2202

ANTH341 **Introduction to Zooarchaeology**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit General Education: DSSP

Credit only granted for: ANTH298D, ANTH641 or ANTH341. Formerly: ANTH298D.

Zooarchaeology is the study of animal remains, especially bones, from archaeological contexts. This course will address both methodology as well as many of the main issues in contemporary zooarchaeology. Zooarchaeology stands at the intersection of a number of social and biological sciences, such as Biology, Osteology, Ecology, History, Anthropology and Economics. We will discuss basic animal osteology and the concepts and practices behind the identification of animal remains from archaeological contexts. We will cover the nature of the data in zooarchaeology, especially issues around using proxy data.

0101	George Hambrecht	Seats (Total: 10)
	TuTh 2:00pm - 3:15pm	TLF 0104B

ANTH358A **Undergraduate Teaching Assistant; Undergraduate Teaching Assistant in Archaeology**

(Perm req)

Credits: 1-3 Grading Method: Regular, Pass-Fail, Audit

Individual instruction course: contact department or instructor to obtain section and index numbers.

Contact department for information to register for this course.

ANTH358B **Undergraduate Teaching Assistant; Undergraduate Teaching Assistant in Bio-Anthropology**

(Perm req)

Credits: 1-3 Grading Method: Regular, Pass-Fail, Audit

Individual instruction course: contact department or instructor to obtain section and index numbers.

Contact department for information to register for this course.

ANTH358C **Undergraduate Teaching Assistant; Undergraduate Teaching Assistant in Cultural Anthropology**

(Perm req)

Credits: 1-3 Grading Method: Regular, Pass-Fail, Audit

Individual instruction course: contact department or instructor to obtain section and index numbers.

Contact department for information to register for this course.

ANTH386 **Experiential Learning**

(Perm req)

Credits: 1-6 Grading Method: Regular, Pass-Fail

Recommended: Completion of advanced courses in relevant subfield of anthropology recommended. Restriction: Permission of BSOS-Anthropology department; and junior standing or higher; and must be in Anthropology program.

Contact department for information to register for this course.

ANTH398A **Independent Study; Research Problems**

(Perm req)

Credits: 1-3 Grading Method: Regular, Pass-Fail

Independent interdisciplinary research and reading in specific areas of anthropology.

Contact department for information to register for this course.

ANTH398B **Independent Study; Modern Tribes of Rome**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Independent interdisciplinary research and reading in specific areas of anthropology.

Contact department for information to register for this course.

ANTH398C **Independent Study; The Mediterranean World**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Independent interdisciplinary research and reading in specific areas of anthropology.

Contact department for information to register for this course.

ANTH398E **Independent Study; Bodies and Burials**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Independent interdisciplinary research and reading in specific areas of anthropology.

Contact department for information to register for this course.

ANTH398H **Independent Study; Social Anthropology of Britain**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Independent interdisciplinary research and reading in specific areas of anthropology.

Contact department for information to register for this course.

ANTH398I **Independent Study; Great Kingdoms of Ancient Near East**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Independent interdisciplinary research and reading in specific areas of anthropology.

Contact department for information to register for this course.

ANTH398L **Independent Study; Social Anthropology of Britain**

Credits: 1-3 Grading Method: Regular, Pass-Fail, Audit

Independent interdisciplinary research and reading in specific areas of anthropology.

Contact department for information to register for this course.

ANTH404 **Culture, Media, and the Production of Knowledge**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Jointly offered with: ANTH604. Credit only granted for: ANTH404 or ANTH604.

The social lives, or 'cultures' of media will be examined: namely, how people have adopted, adapted, signified, and interacted through media - both in theory and in practice. In this seminar, students will learn about 'media anthropology' as a subfield. They will also discuss various media making practices and media forms in relation to issues of racial, gender and sexual identity; self-definition; religiosity; war and intergroup conflict; advertising; and nationalism among others.

0101	Marlaina Martin	Seats (Total: 20)
	TuTh 3:30pm - 4:45pm	WDS 0104

ANTH411 **Anthropology of Immigration and Health**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Jointly offered with ANTH611. Credit only granted for: ANTH411 or ANTH611.

The United Nations estimates that some 230 million people around the world are migrants who live outside their country of birth. This course focuses on these migrant populations, considering the implications of movement across borders and settlement in new societies on their health and well-being. We will investigate the social, political, and economic structures that shape disease and illness and produce differential access to health care for migrants. Within that context, we will explore the health effects of migration itself and particular health conditions from which migrants suffer. We will also examine how migrants interface with differently configured health care systems as well as strategies they and their advocates use to promote health and well-being.

0101	Christina Getrich	Seats (Total: 20)
	TuTh 11:00am - 12:15pm	WDS 0104

ANTH417 **Science Technology, and Medicine**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

How does something become a scientific fact? What is the social impact of new technologies and medical innovations? Who benefits and who is harmed by the rapid development of modern science, technology, and medicine? These questions are explored by drawing on the fields of anthropology, history, sociology, cultural studies, and science and technology studies to understand the inherent connections between science, technology, medicine, and society.

0101	Robert Bienvenu	Seats (Total: 20)
	TuTh 12:30pm - 1:45pm	WDS 1114

ANTH424 **Human Skeletal Anatomy**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

In addition to descriptive information about bone identification, the lectures will address the history of human anatomical studies, the development of analytical techniques, and the application of these techniques in paleoanthropology, comparative anatomy, functional anatomy (and related fields, such as physical therapy), and skeletal analysis in museum, historic cemetery, archaeological, and forensic settings. Emphasis will be on the development of the skeleton and recognition of normal variation in bones. The laboratory sessions will allow the students access to human bones for the purpose of identification, documentation of human variation, and application of techniques to obtain information about the living individual from the skeleton.

0101	Marilyn London	Seats (Total: 20)
	Tu 2:00pm - 4:45pm	WDS 0124C

ANTH448R **Three-Dimensional Digital Documentation: Using Laser-based Measurement Systems**

(Perm req)

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Jointly offered with: ANTH632. Credit only granted for: ANTH448R or ANTH632.

This course focuses on the fundamentals of documenting components of the built environment and the landscapes in which they are located. Also, on the use of lasers to calculate 3-D measurements at various scales, from objects, to buildings, and landscapes. Data management and archiving, field documentation processes, and post-processing of scan point cloud are covered. This includes the production of deliverables for clients or project partners, such as plans, elevations, orthoimagery, and cleaned exported point clouds in formats that are compatible with Autodesk software and other CAD or rendering software platforms. This course is intended for students working in fields that rely on accurately documenting components of the built environment in three dimension, including architects, engineers, preservationists, archaeologists, or digital designers.

Cross-listed with ARCH478O, ARCH678O, ANTH632, and HISP619O. Credit only granted for: ARCH478O, ARCH678O, ANTH448R, ANTH632 or HISP619O. This course focuses on the fundamentals of documenting components of the built environment and the landscapes in which they are located. It focuses on the use of lasers to calculate 3-D measurements at various scales, from objects, to buildings, and landscapes. It will cover data management and archiving, field documentation processes, and post-processing of scan point clouds. This includes the production of deliverables for clients or project partners, such as plans, elevations, orthoimagery, and cleaned exported point clouds in formats that are compatible with Autodesk software and other CAD or rendering software platforms. This course is intended for students working in fields that rely on accurately documenting components of the built environment in three dimension, including architects, engineers, preservationists, archaeologists, or digital designers.

0101	Stefan Woehlke W 2:00pm - 4:40pm	Seats (Total: 15) ARC 1115

ANTH464 **Anthropology of Cultural Heritage**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit General Education: DSSP

Prerequisite: ANTH260. Jointly offered with ANTH664. Credit only grant ed for: ANTH469T, ANTH689T, ANTH464, ANTH664. Formerly: ANTH469T.

A global exploration of how the past is remade in the present. Covers the breadth of scope and specific interventions of heritage practice at the global scale, including the social, political, economic, and ethical dimensions of cultural heritage.

0101	Kathryn Lafrenz Samuels M 1:00pm - 3:45pm	Seats (Total: 20) WDS 1114

ANTH467 **Researching Environment and Culture**

Credits: 3 | Grading Method: Regular, Pass-Fail, Audit | General Education: DSSP

Recommended: ANTH322, ANTH360, ENSP101, or ENSP102.

In this applied course, students use mixed methods to research a locally-based, environmental sustainability issue. Classroom time will be split between seminar discussions of theory, methods, and relevant case studies, and lab work focused on project development, data analysis, and report write up. Students are expected to spend additional time outside class on data collection, analysis, and writing

0101	L Jen Shaffer Th 2:00pm - 4:45pm	Seats (Total: 20) WDS 0124C

ANTH468F **Special Topics in Cultural Anthropology; Introduction to American Indian Cultures of the U.S.**

Credits: 3 | Grading Method: Regular, Pass-Fail, Audit

Advanced courses in varying specialty areas of cultural anthropology that respond to new theoretical developments, faculty research interests, or specialties of visiting scholars.

Jointly offered with AMST328N and RELS319N. Credit granted for AMST328N, ANTH468F or RELS319N.

0101	Bayley Marquez TuTh 2:00pm - 3:15pm	Seats (Total: 25) TWS 0134

ANTH468V **Special Topics in Cultural Anthropology; Performativity of Law and Justice**

Credits: 3 | Grading Method: Regular, Pass-Fail, Audit

Advanced courses in varying specialty areas of cultural anthropology that respond to new theoretical developments, faculty research interests, or specialties of visiting scholars.

Crosslisted with THET408L. Credit only granted for ANTH468V or THET408L. Law is theatre, sport, and business. True stories are creatively told to select audiences and stakes are high. This class will explore the performances and performative power of courtroom trials and testimony, as well as offstage legal culture. We will examine notions of truth, evidence, reason, and justice, and will analyze examples from both the everyday and the sensational.

0101	Laurie Frederik TuTh 11:00am - 12:15pm	Seats (Total: 15) PAC 1809

ANTH469J **Advanced Special Topics in Cultural Anthropology; Disaster Recovery in Japan**

Credits: 3

Grading Method: Regular, Pass-Fail, Audit

Upper level cultural anthropology courses on varying topics derived from new interests of the faculty or the specialties of visiting scholars.

Contact department for information to register for this course.

ANTH469L **Advanced Special Topics in Cultural Anthropology; Postcolonialism**

Credits: 3

Grading Method: Regular, Pass-Fail, Audit

Upper level cultural anthropology courses on varying topics derived from new interests of the faculty or the specialties of visiting scholars.

Cross-listed with HIST419L, AMST498F, ENGL479O, LASC448K, and PHIL428A. Credit only granted for HIST419L, ANTH469L, AMST498F, ENGL479O, LASC448K, or PHIL428A.

0101	James Maffie	Seats (Total: 40)
	TuTh 3:30pm - 4:45pm	KEY 0116

ANTH476 **Senior Research**

(Perm req)

Credits: 3-4

Grading Method: Regular, Pass-Fail, Audit

Restriction: Must be in Anthropology program. Credit only granted for: ANTH476 or ANTH486.

Capstone course in which students pursue independent research into a current problem in anthropology, selected with assistance of a committee of faculty. Research leads to the writing of a senior thesis in anthropology.

Contact department for information to register for this course.

ANTH477 **Senior Thesis**

(Perm req)

Credits: 3-4

Grading Method: Regular, Pass-Fail, Audit

Prerequisite: ANTH476. Restriction: Permission of BSOS-Anthropology department; and must be in Anthropology program. Credit only granted for: ANTH477 or ANTH487.

Capstone course in which students write a senior thesis on independent research into a current problem in anthropology. The thesis is defined before a committee of faculty.

Contact department for information to register for this course.

ANTH485 **Honors Research Preparation**

(Perm req)

Credits: 3

Grading Method: Regular, Pass-Fail

Restriction: Permission of BSOS-Anthropology department; and must be in Anthropology program; and must be admitted to University Honors Program or Anthropology Honors Program.

Honors Research Preparation is an independent study course during which the Honors candidate will work with their Honors Thesis Advisor to establish not only the structure of the thesis and timeline, but also the formation of Thesis Review Committee.

Contact department for information to register for this course.

ANTH486 **Honors Research**

(Perm req)

Credits: 3-4

Grading Method: Regular, Pass-Fail

Restriction: Permission of BSOS-Anthropology department; and must be in Anthropology program; and must be admitted to University Honors Program or Anthropology Honors Program. Credit only granted for: ANTH486 or ANTH476.

Capstone course in which students pursue independent research into a current problem in anthropology, selected with assistance of a committee of faculty. Research leads to the writing of an honors thesis in anthropology.

Contact department for information to register for this course.

ANTH487 **Honors Thesis**

(Perm req)

Credits: 3-4

Grading Method: Regular, Pass-Fail

Prerequisite: ANTH486. Restriction: Permission of BSOS-Anthropology department; and must be in Anthropology program; and must be admitted to University Honors Program or Anthropology Honors Program. Credit only granted for: ANTH487 or ANTH477.

Capstone course in which students write a thesis on the results of independent research into a current problem in anthropology.

Contact department for information to register for this course.

ANTH604 **Culture, Media, and the Production of Knowledge**

Credits: 3

Grading Method: Regular, Audit, Sat-Fail

Jointly offered with: ANTH404. Credit only granted for: ANTH404 or ANTH604.

The social lives, or 'cultures' of media will be examined: namely, how people have adopted, adapted, signified, and interacted through media - both in theory and in practice. In this seminar, students will learn about 'media anthropology' as a subfield. They will also discuss various media making practices and media forms in relation to issues of racial, gender and sexual identity; self-definition; religiosity; war and intergroup conflict; advertising; and nationalism among others.

0101	Marlaina Martin	Seats (Total: 10)
	TuTh 3:30pm - 4:45pm	WDS 0104

ANTH611 **Anthropology of Immigration and Health**

Credits: 3 Grading Method: Regular, Audit, Sat-Fail

Credit only granted for: ANTH411 or ANTH611.

The United Nations estimates that some 230 million people around the world are migrants who live outside their country of birth. This course focuses on these migrant populations, considering the implications of movement across borders and settlement in new societies on their health and well-being. We will investigate the social, political, and economic structures that shape disease and illness and produce differential access to health care for migrants. Within that context, we will explore the health effects of migration itself and particular health conditions from which migrants suffer. We will also examine how migrants interface with differently configured health care systems as well as strategies they and their advocates use to promote health and well-being.

0101	Christina Getrich	Seats (Total: 10)
	TuTh 11:00am - 12:15pm	WDS 0104

ANTH630 **Quantification and Statistics in Applied Anthropology**

Credits: 3 Grading Method: Regular, Audit, Sat-Fail

Restriction: Must be in one of the following programs (Anthropology (Doctoral); Anthropology (Master's)).

An intensive overview of key quantitative and statistical approaches used by social scientists in applied ad policy research. This includes nonparametric and parametric statistical approaches. Students utilize statistical software and analyze existing and student-created databases. Anthropological case studies are emphasized.

0101	Marissa Stewart	Seats (Total: 20)
	M 4:00pm - 6:45pm	ESJ 2309

ANTH632 **Three-Dimensional Digital Documentation: Using Laser-based Measurement Systems**

(Perm req)

Credits: 3

Grading Method: Regular, Audit, Sat-Fail

This course focuses on the fundamentals of documenting components of the built environment and the landscapes in which they are located. Also, on the use of lasers to calculate 3-D measurements at various scales, from objects, to buildings, and landscapes. Data management and archiving, field documentation processes, and post-processing of scan point cloud are covered. This includes the production of deliverables for clients or project partners, such as plans, elevations, orthoimagery, and cleaned exported point clouds in formats that are compatible with Autodesk software and other CAD or rendering software platforms. This course is intended for students working in fields that rely on accurately documenting components of the built environment in three dimension, including architects, engineers, preservationists, archaeologists, or digital designers.

Cross-listed with ARCH478O, ARCH678O, ANTH448R, and HISP619O. Credit only granted for: ARCH478O, ARCH678O, ANTH448R, ANTH632 or HISP619O.

0101	Stefan Woehlke W 2:00pm - 4:40pm	Seats (Total: 15) ARC 1115

ANTH641 **Introduction to Zooarchaeology**

Credits: 3

Grading Method: Regular, Audit, Sat-Fail

Jointly offered with ANTH341. Credit only granted for: ANTH298D, ANTH34 1 or ANTH641.

Zooarchaeology is the study of animal remains, especially bones, from archaeological contexts. This course will address both methodology as well as many of the main issues in contemporary zooarchaeology. Zooarchaeology stands at the intersection of a number of social and biological sciences, such as Biology, Osteology, Ecology, History, Anthropology and Economics. We will discuss basic animal osteology and the concepts and practices behind the identification of animal remains from archaeological contexts. We will cover the nature of the data in zooarchaeology, especially issues around using proxy data.

0101	George Hambrecht TuTh 2:00pm - 3:15pm	Seats (Total: 5) TLF 0104B

ANTH664 **Anthropology of Cultural Heritage**

Credits: 3

Grading Method: Regular, Audit, Sat-Fail

Credit only granted for: ANTH469T, ANTH689T, ANTH464 or ANTH664. Formerly: ANTH689T.

A global exploration of how the past is remade in the present. Covers the breadth of scope and specific interventions of heritage practice at the global scale, including the social, political, economic, and ethical dimensions of cultural heritage.

0101	Kathryn Lafrenz Samuels M 1:00pm - 3:45pm	Seats (Total: 10) WDS 1114

ANTH665 **Method & Theory in Medical Anthropology and Global Health**

Credits: 3 Grading Method: Regular, Audit, Sat-Fail

Credit only granted for: ANTH310, ANTH465 or ANTH665.

Provides a critical perspective to global health that encompasses key political, economic, and cultural factors associated with the nature and magnitude of global health issues such as HIV/AIDS, tuberculosis and malaria, paying particular attention to how poverty and inequalities within and between societies has accelerated current global health challenges. Introduces students to how medical anthropologists have contributed to the debates surrounding the globalization of health.

0101	Thurka Sangaramoorthy TuTh 11:00am - 12:15pm	Seats (Total: 10) WDS 1114

ANTH677 **Science Technology, and Medicine**

Credits: 3 Grading Method: Regular, Audit, Sat-Fail

Jointly offered with: ANTH417.

How does something become a scientific fact? What is the social impact of new technologies and medical innovations? Who benefits and who is harmed by the rapid development of modern science, technology, and medicine? These questions are explored by drawing on the fields of anthropology, history, sociology, cultural studies, and science and technology studies to understand the inherent connections between science, technology, medicine, and society.

0101	Robert Bienvenu TuTh 12:30pm - 1:45pm	Seats (Total: 10) WDS 1114

ANTH688A **Current Developments in Anthropology**

(Perm req)

Credits: 3 Grading Method: Regular, Audit, Sat-Fail

Detailed investigation of a current problem or research technique, the topic to be chosen in accordance with faculty interests and student needs.

Contact department for information to register for this course.

ANTH689A **Special Problems in Anthropology**

(Perm req)

Credits: 1-6

Grading Method: Regular, Sat-Fail

Contact department for information to register for this course.

ANTH701 **Anthropology Internship Preparation**

Credits: 3

Grading Method: Regular, Audit, Sat-Fail

Preparation for internship includes practicum training in development, presentation and evaluation of position papers, proposals and work plans; literature search and use of secondary data sources in decision making the effect cultural analysis and resource management; ethics and professional development for work in non-academic settings.

Contact department for information to register for this course.

ANTH712 **Anthropology Internship Analysis**

(Perm req)

Credits: 3

Grading Method: Regular, Sat-Fail

Prerequisite: ANTH789.

The preparation and presentation of internship results, and the development of skills in report writing and presentation. Includes the completion of a professional quality report or publishable paper based on the internship experience.

Contact department for information to register for this course.

ANTH722 **Ecological Anthropology**

Credits: 3

Grading Method: Regular, Sat-Fail

Restriction: Must be in one of the following programs (Anthropology (Doctoral); Anthropology (Master's)). Credit only granted for: ANTH720 or ANTH722.

An overview of important approaches to ecological anthropology. Population, systems, community, political, behavioral and evolutionary ecology will be examined as they have been applied to a range of anthropological questions. Complexity theory (nonlinear dynamics) and topics in game theory will also be addressed. Students will map the field of ecological anthropology and to assess the strengths and weaknesses of contemporary approaches, methods and theories.

0101	Yancey Orr	Seats (Total: 12)
	Th 4:00pm - 6:45pm	KEY 0107

ANTH740 **Theories of the Past and Accomplishments of Archaeology**

Credits: 3

Grading Method: Regular, Audit, Sat-Fail

Credit only granted for: ANTH689P or ANTH740. Formerly: ANTH689P.

The primary purpose is to highlight some of the key achievements made by archaeologists in informing questions of interest to society from 1850 on. Key achievements include how archaeologists understand elements of the past thought to be central to the development of modern socieity. A secondary purpose is to introduce students to the theories used to understand the place of the past in society and the function of answers to questions thought central to modern social life.

Jointly offered with ANTH448P.

0101	Mark Leone	Seats (Total: 15)
	Tu 3:30pm - 6:00pm	WDS 1130

ANTH745 **International Heritage Management**

Credits: 3 Grading Method: Regular, Audit, Sat-Fail

Restriction: Must be in the Cultural and Heritage Resource Management Program (CHRM); or by permission of the Anthropology department.

An examination of international heritage management practices and global ethical and professional norms in order to contextualize domestic cultural resource management in the US. The survey will also explore the linkages and areas for growth between international and domestic heritage practice.

PLA1	Joshua Samuels	Seats (Total: 20)
	Meets February 27, 2020 - May 20, 2020	
	Class time/details on ELMs	ONLINE
	Must be in Cultural & Heritage Resource Management program (MPCH, Z121) For permission to enroll, contact oes@umd.edu.	

ANTH746 **Applied Archaeological Theory**

Credits: 3 Grading Method: Regular, Audit, Sat-Fail

Restriction: Must be in the Cultural and Heritage Resource Management Program (CHRM); or by permission of the Anthropology department.

Does cultural resources management (CRM) need theory? Can archeological theory help us understand CRM conventions and configurations, and does CRM have its own distinctive contribution to make to archaeological theory? This course explores these questions while surveying the key areas of theory that inform the work that CRM practitioners do, and also the place of CRM in cultural discourse.

PLA1	Matthew Palus	Seats (Total: 20)
	Meets February 27, 2020 - May 20, 2020	
	Class time/details on ELMs	ONLINE
	Must be in Cultural & Heritage Resource Management program (MPCH,Z121). For permission to enroll, contact oes@umd.edu.	

ANTH788 **Internship Research**

(Perm req)

Credits: 1-3 Grading Method: Regular, Audit, Sat-Fail

This course augments ANTH 789 and is graded in conjunction with it.

Contact department for information to register for this course.

ANTH789 **Internship**

(Perm req)

Credits: 3-6 Grading Method: Regular, Audit, Sat-Fail

Individual instruction course supervised by a department faculty member.

Contact department for information to register for this course.

ANTH856 **Museum Research Seminar**

Credits: 3 Grading Method: Regular, Audit, Sat-Fail

Prerequisite: AMST655, ANTH655, or HIST610. Cross-listed with HIST810, AMST856. Credit only granted for: AMST856, ANTH856, or HIST810.

A research seminar focusing on the practice and presentation of cultural and historical scholarship in museums and historical sites. Students will complete an original research project on the challenges and opportunities of public exhibition and interpretation of cultural and historical research.

0101	Henry Gregory	Seats (Total: 15)
	W 7:15pm - 10:00pm	WDS 1130

ANTH857 **Museum Scholarship Practicum**

(Perm req)

Credits: 3-6 Grading Method: Regular, Sat-Fail

Prerequisite: AMST856, ANTH856, or HIST810. Restriction: Permission of Museum Scholarship Program required. Cross-listed with HIST811, AMST857. Credit only granted for: AMST857, ANTH857, or HIST811.

Students devise and carry out a research program using the collections at the Smithsonian Institution or some other cooperating museum, working under joint supervision of a museum professional and a university faculty member.

0101	Mary Alexander Contact instructor or department for details.	Seats (Total: 5)
0401	Instructor: TBA Contact instructor or department for details.	Seats (Total: 2)
1005	Judith Freidenberg Contact instructor or department for details.	Seats (Total: 10)

ANTH898 **Pre-Candidacy Research**

Credits: 1-8 Grading Method: Regular, Sat-Fail

Contact department for information to register for this course.

ANTH899 **Doctoral Dissertation Research**

(Perm req)

Credits: 6 Grading Method: Sat-Fail

Contact department for information to register for this course.

AOSC Atmospheric and Oceanic Science Spring 2020

AOSC123 **Causes and Implications of Global Change**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit CORE: PS General Education: DSNS, SCIS

Cross-listed with GEOL123. Credit only granted for: AOSC123, GEOG123, GEOL123, or METO123. Formerly: METO123.

Responsible policy and decision making on issues related to the global environment requires understanding of the basic scientific issues, relationships between the geophysical and biological sciences, the impacts on regional and global endeavors, and the political manner in which humans respond. This course embodies an integrated introduction to the broad scientific and social aspects of the global change problem.

0101	Rachel Pinker MW 12:00pm - 12:50pm F 9:00am - 9:50am	Seats (Total: 20) ATL 2324 PLS 1164	 Discussion

0102	Rachel Pinker MW 12:00pm - 12:50pm F 10:00am - 10:50am	Seats (Total: 20) ATL 2324 PLS 1164	Discussion
0103	Rachel Pinker MW 12:00pm - 12:50pm F 11:00am - 11:50am	Seats (Total: 20) ATL 2324 PLS 1164	Discussion
0104	Rachel Pinker MW 12:00pm - 12:50pm F 9:00am - 9:50am	Seats (Total: 20) ATL 2324 PLS 1172	Discussion
0105	Rachel Pinker MW 12:00pm - 12:50pm F 10:00am - 10:50am	Seats (Total: 20) ATL 2324 PLS 1172	Discussion
0106	Rachel Pinker MW 12:00pm - 12:50pm F 11:00am - 11:50am	Seats (Total: 20) ATL 2324 PLS 1172	Discussion

AOSC200 **Weather and Climate**

Credits: 3	Grading Method: Regular, Pass-Fail, Audit	CORE: PS	General Education: DSNL (if taken with AOSC201), DSNS, SCIS

Prerequisite: MATH107, MATH110, or MATH115. Recommended: Concurrent enrollment in AOSC201. Formerly: METO200.

Broad survey of the state of knowledge and problems of atmospheric science. Origin and structure of the atmosphere, meteorological observations, weather maps, forecasting, satellites, energetics, wind, general circulation, storms, severe weather, climate change, air pollution.

A Marquee Science and Technology Course designed for Non-Science Majors: http://www.marqueecourses.umd.edu/ Click here for more Marquee course information.*

0101	Jeffrey Henrikson TuTh 12:30pm - 1:45pm W 1:00pm - 1:50pm	Seats (Total: 30) ATL 2324 ATL 2330	Discussion
0102	Jeffrey Henrikson TuTh 12:30pm - 1:45pm W 2:00pm - 2:50pm	Seats (Total: 30) ATL 2324 ATL 2330	Discussion

0103	Jeffrey Henrikson TuTh 12:30pm - 1:45pm W 3:00pm - 3:50pm	Seats (Total: 30) ATL 2324 ATL 2428	Discussion
0104	Jeffrey Henrikson TuTh 12:30pm - 1:45pm W 1:00pm - 1:50pm	Seats (Total: 30) ATL 2324 ATL 2416	Discussion
0201	Jeffrey Henrikson TuTh 2:00pm - 3:15pm W 2:00pm - 2:50pm	Seats (Total: 30) ATL 2324 ATL 2428	Discussion
0202	Jeffrey Henrikson TuTh 2:00pm - 3:15pm W 3:00pm - 3:50pm	Seats (Total: 30) ATL 2324 ATL 2416	Discussion
0203	Jeffrey Henrikson TuTh 2:00pm - 3:15pm M 1:00pm - 1:50pm	Seats (Total: 30) ATL 2324 ATL 2428	Discussion
0204	Jeffrey Henrikson TuTh 2:00pm - 3:15pm M 2:00pm - 2:50pm	Seats (Total: 30) ATL 2324 ATL 2330	Discussion

AOSC201 **Weather and Climate Laboratory**

Credits: 1 | Grading Method: Regular, Pass-Fail, Audit | CORE: PL | General Education: DSNL

Corequisite: AOSC200. Formerly: METO201.

Laboratory exercises to supplement AOSC200, including weather observations, weather map analysis, use of the Internet, forecasting practice and climate modeling.

Students must pay a $60.00 lab materials fee.

0101	Lindsey Rodio M 2:00pm - 3:50pm	Seats (Total: 26) ATL 3426	Lab
0102	Justin Hicks W 2:00pm - 3:50pm	Seats (Total: 26) ATL 3426	Lab

0103	Austin Hope F 10:00am - 12:00pm	Seats (Total: 26) ATL 3426	Lab
0104	Lindsey Rodio M 12:00pm - 1:50pm	Seats (Total: 26) ATL 3426	Lab
0105	Joseph Knisely F 12:00pm - 1:50pm	Seats (Total: 26) ATL 3426	Lab
0106	Joseph Knisely F 2:00pm - 3:50pm	Seats (Total: 26) ATL 3426	Lab
0107	Austin Hope Tu 3:30pm - 5:20pm	Seats (Total: 26) ATL 3426	Lab
0108	Justin Hicks W 12:00pm - 1:50pm	Seats (Total: 26) ATL 3426	Lab

AOSC247 **Scientific Programming: Python**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Prerequisite: MATH140. Recommended: Familiarity with basic descriptive statistics. Credit only granted for: AOSC458J, AOSC247 or CMSC131. Formerly: AOSC458J.

A comprehensive introduction to scientific computation and visualization techniques with Python applied to data intensive questions in the Natural Sciences. The class emphasizes real-world applications, providing students with essential hands-on experience using Python for data analysis and visualization, developing analytical skills for observational and modeling data, and performing virtual experiments to distinguish data contributing factors. Students will gain an understanding of the scientific data issues including: signal vs noise, trend vs periodicity, mean vs extreme changes, and accuracy vs uncertainty. Students will gain extensive experience using command line linux. Skills including local and remote file transfer and synchronization, file and directory permission, utilities for diagnosing performance issues, and data compression.

Students must pay a $60.00 lab materials fee.

0101	Jeffrey Henrikson MW 5:00pm - 6:15pm	Seats (Total: 50) ATL 2428	

AOSC399 **Independent Study in Academic Peer Mentoring**

(Perm req)

Credits: 1-3

Grading Method: Regular, Pass-Fail

Earn academic credit for the time spent supporting an AOSC course in the Academic Peer Mentoring Program (AMP).

Corequisite: TLTC333. Repeatable to 6 credits.

Contact department for information to register for this course.

AOSC401 **Climate Dynamics and Earth System Science**

Credits: 3

Grading Method: Regular, Pass-Fail, Audit

Prerequisite: AOSC400 or AOSC200; and MATH141; and (PHYS161 or PHYS171). Or permission of instructor.

Introduction of the earth and global climate systems and their major components: atmosphere, land, ocean, biosphere and cryosphere. Key processes governing the function of the earth's climate: Global energy balance and water cycle, climate dynamics (general circulation of the atmosphere and ocean) and climate physics (aerosol, cloud and rain), as well as climate variability and climate changes. Phenomena resulting from this coupled system including El Nino-Southern Oscillation, monsoons, and the hydrological cycle will be discussed, with a focus on how the Earth System responds to global warming.

0101	Zhanqing Li	Seats (Total: 25)
	TuTh 2:00pm - 3:15pm	ATL 2416

AOSC424 **Remote Sensing of the Atmosphere and Ocean**

Credits: 3

Grading Method: Regular, Pass-Fail, Audit

Prerequisite: 1 course with a minimum grade of C- from (PHYS171, PHYS161, MATH141); or permission of instructor.

Many of the properties of the atmosphere, ocean, and land surface are most easily observed from satellite remote sensing. This course will provide students with a hands-on introduction to a variety of passive and active sensing techniques and sensors observing our changing environment. Topics include: orbital dynamics and electromagnetic properties of the atmosphere and surface; atmospheric emission characteristics and scattering; chemical composition and spectroscopy; temperature retrievals; detection and retrieval of aerosol, cloud and rain; ocean surface properties; sea surface temperature and color; active sensing of wind stress, sea level, and internal waves; time-dependent gravity; properties of vegetation and ice.

0101	Derrick Lampkin	Seats (Total: 20)
	MWF 2:00pm - 2:50pm	ATL 2416

AOSC432 **Dynamics of the Atmosphere and Ocean**

Credits: 3

Grading Method: Regular, Pass-Fail, Audit

Prerequisite: AOSC431. Corequisite: MATH246. Credit only granted for: AOSC432, METO432, or AOSC632. Formerly: METO432.

Equations of motion and their approximation, scale analysis for the atmosphere and the ocean. Conservation properties. Fluid motion in the atmosphere and oceans. Geostrophic/balanced and ageostrphic/unbalanced motion. Circulation, vorticity, and potential vorticity. Introduction to the boundary layer.

0101	Kayo Ide TuTh 9:30am - 10:45am	Seats (Total: 20) ATL 2416
AM01	Kayo Ide TuTh 9:30am - 10:45am	Seats (Total: 1) ATL 2416

AOSC433 **Atmospheric Chemistry and Climate**

Credits: 3

Grading Method: Regular, Pass-Fail

Prerequisite: CHEM131, CHEM135, or CHEM146. And MATH241; or permission of CMNS-Atmospheric & Oceanic Science department; or permission of CMNS-Chemistry & Biochemistry department. Cross-listed with CHEM433. Credit only granted for: AOSC433, AOSC633, CHEM433, or CHEM633. Formerly: AOSC434.

The effects of human activity on atmospheric composition, focused on global warming, the carbon cycle, air pollution, and the ozone layer. Fundamentals of atmosphereic chemistry (spectroscopy, kinetics, isotopic analysis, and biogeochemical cycles) are related to the modern understanding of climate change, air quality, and ozone depletion, based on resources such as satellite missions, field campaigns, and scientific assessments published by international agencies. We also examine how society's energy needs could be met, in the future, in a manner with less impact on atmospheric composition than the present heavy reliance on combusion of fossil fuels.

0101	Ross Salawitch TuTh 2:00pm - 3:15pm	Seats (Total: 35) ATL 2428

AOSC447 **Machine Learning in Earth Science**

Credits: 3

Grading Method: Regular, Pass-Fail

Prerequisite: Must have completed MATH140.

A comprehensive introductory course designed to prepare undergraduate and graduate students for applying machine learning techniques to solve real-world problems in Earth science. It emphasizes practical solution implementation, providing students with essential hands-on experience using the most popular open-source analytics tools based on Python, a general-purpose programming language. The course works through all steps in machine learning, from problem specification, data analytics to analytical solution, and applies advanced statistical and analytical algorithms to uncover hidden data relationships and transform them into predictive understanding or decision support. The topics covered include: Python programming, SciPy and Scikit-learn utility, data engineering, visualization, classifiers, regression models, canonical correlation analysis, structural equation models, decision trees, random forests, boosting machines, support vector machines, clustering, dimensionality reduction, principal component analysis, and neural networks.

0101	Xin-Zhong Liang TuTh 9:30am - 10:45am	Seats (Total: 15) ATL 2428	
AM01	Xin-Zhong Liang TuTh 9:30am - 10:45am	Seats (Total: 1) ATL 2428	

AOSC458R **Advanced Topics in Atmospheric and Oceanic Science; Air Sampling and Analysis**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Special topics in atmospheric and oceanic science are given intensive study. The topic of concentration varies, from semester to semester and depends on student and faculty interests. Often, specialists from other institutions are invited to the campus on a visiting lectureship basis to conduct the course.

0101	Russell Dickerson MF 1:00pm - 1:50pm W 1:00pm - 4:00pm	Seats (Total: 8) ATL 2416 ATL 4232	 Lab

AOSC472 **Mesoscale Meteorology**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Prerequisite: AOSC432, AOSC600, AOSC610, or AOSC470. Restriction: Non-degree-seeking students require the permission of the instructor. Jointly offered with AOSC602. Credit only granted for: AOSC472 or AOSC6 02.

Survey a broad range of mesoscale meteorological features with emphasis on convection and associated phenomena. Define the mesoscale and understand its underlying principles; Introduce non-convective circulations and their importance for weather forecasting; Understand the precursors and occurrence of deep moist convection.

0101	Jonathan Poterjoy MW 9:00am - 10:15am	Seats (Total: 10) AJC 2134

AOSC475 **Carbon Cycle and Climate: Past, Present, and Future**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Jointly offered with AOSC675. Credit only granted for: AOSC475 or AOSC6 75.

The fundamentals of the Earth's carbon cycle, a key biogeochemical cycl that controls Earth's climate and life. The changing characteristics of the carbon cycle on several timescales, ranging from geological, interannual, and the more recent anthropogenic influences on carbon cycle and climate. The carbon cycle in the atmosphere, land, ocean, and the biosphere. The underlying human activities such as fossil fuel burning and deforestation that are responsible for the increase in the atmosphere CO2 and our future options in dealing with the carbon problem such as alternative energy and carbon sequestration.

0101	Ning Zeng TuTh 11:00am - 12:15pm	Seats (Total: 15) ATL 2416

AOSC494 **Atmospheric and Oceanic Science Seminar**

Credits: 1 Grading Method: Regular, Pass-Fail, Audit

Prerequisite: Minimum grade of C- in AOSC431 and AOSC432.

Exposure to a wide range of contemporary topics in atmospheric, oceanic, and climate sciences, to foster research interests and promote critical thinking through the weekly AOSC departmental seminar series.

0101	Timothy Canty Th 3:30pm - 5:00pm	Seats (Total: 20) ATL 2400

AOSC498 **Senior Research Project II**

(Perm req)

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

The project will be based on the research or development plan created in AOSC493. It may be completed with the approval of a faculty advisor in conjunction with an internship. Final written thesis and oral defense will be expected.

Contact department for information to register for this course.

AOSC499 **Special Problems in Atmospheric Science**

Credits: 1-3 Grading Method: Regular, Pass-Fail, Audit

Research or special study in the field of meteorology and the atmospheric and oceanic sciences.

Contact department for information to register for this course.

AOSC602 **Mesoscale Meteorology**

Credits: 3 Grading Method: Regular, Audit, Sat-Fail

Survey a broad range of mesoscale meteorological features with emphasis on convection and associated phenomena. Define the mesoscale and understand its underlying principles; Introduce non-convective circulations and their importance for weather forecasting; Understand the precursors and occurrence of deep moist convection.

0101	Jonathan Poterjoy MW 9:00am - 10:15am	Seats (Total: 15) AJC 2134
AM01	Jonathan Poterjoy MW 9:00am - 10:15am	Seats (Total: 0) AJC 2134

AOSC611 **Dynamics of the Atmosphere and Oceans II**

Credits: 3 Grading Method: Regular, Audit, Sat-Fail

Formerly: METO611.

Waves and instabilities in the atmosphere and the ocean. Gravity, Rossby, coastal and equatorial waves. Flow over topography. Dynamic instabilities including barotropic, baroclinic, inertial, and instabilities of the coupled ocean-atmosphere system. Stationary waves and multiple equilibria.

0101	Da-Lin Zhang MWF 11:00am - 11:50am	Seats (Total: 25) ATL 2416
AM01	Da-Lin Zhang MWF 11:00am - 11:50am	Seats (Total: 1) ATL 2416

AOSC617 **Atmospheric and Oceanic Climate**

Credits: 3 Grading Method: Regular, Audit, Sat-Fail

Prerequisite: AOSC610; or permission of instructor. Formerly: METO617.

The general circulation of the atmosphere and oceans, historical perspective, observations, and conceptual models; wind-driven and thermohaline circulation of the oceans. Seasonal cycle and monsoon circulations; interannual to interdecadal climate variability; climate change.

0101	James Carton TuTh 12:30pm - 1:45pm	Seats (Total: 20) ATL 2416
AM01	James Carton TuTh 12:30pm - 1:45pm	Seats (Total: 1) ATL 2416

AOSC621 **Physics and Chemistry of the Atmosphere II**

Credits: 3 Grading Method: Regular, Audit, Sat-Fail

Prerequisite: MATH462; or students who have taken courses with comparable content may contact the department. Formerly: METO621.

Spectroscopy; basic concepts in radiative transfer and atmospheric chemistry; photolysis rates for atmospheric molecules.

$60 Lab fee

0101	Xin-Zhong Liang TuTh 2:00pm - 3:15pm	Seats (Total: 20) ATL 3426
AM01	Xin-Zhong Liang TuTh 2:00pm - 3:15pm	Seats (Total: 1) ATL 3426

AOSC633 **Atmospheric Chemistry and Climate**

Credits: 3 Grading Method: Regular, Sat-Fail

Prerequisite: CHEM131, CHEM135, or CHEM146. And MATH241; or permission of CMNS-Atmospheric & Oceanic Science department; or permission of CMNS-Chemistry & Biochemistry department. Cross-listed with CHEM633. Credit only granted for: AOSC433, AOSC633, CHEM433, or CHEM633.

The effects of human activity on atmospheric composition, focused on global warming, the carbon cycle, air pollution, and the ozone layer. Fundamentals of atmosphereic chemistry (spectroscopy, kinetics, isotopic analysis, and biogeochemical cycles) are related to the modern understanding of climate change, air quality, and ozone depletion, based on resources such as satellite missions, field campaigns, and scientific assessments published by international agencies. We also examine how society's energy needs could be met, in the future, in a manner with less impact on atmospheric composition than the present heavy reliance on combusion of fossil fuels.

0101	Ross Salawitch TuTh 2:00pm - 3:15pm	Seats (Total: 10) ATL 2428	
AM01	Ross Salawitch TuTh 2:00pm - 3:15pm	Seats (Total: 1) ATL 2428	

AOSC634 **Air Sampling and Analysis**

Credits: 3 Grading Method: Regular, Audit, Sat-Fail

Formerly: METO634.

Theory and application of analytical techniques for the analysis of atmospheric gases and particles including priority pollutants. Combined chemical and meteorological considerations in designing field experiments.

0101	Russell Dickerson MF 1:00pm - 1:50pm W 1:00pm - 4:00pm	Seats (Total: 15) ATL 2416 ATL 4232	 Lab
AM01	Russell Dickerson MF 1:00pm - 1:50pm W 1:00pm - 4:00pm	Seats (Total: 1) ATL 2416 ATL 4232	 Lab

AOSC647 **Machine Learning in Earth Science**

Credits: 3 Grading Method: Regular, Sat-Fail

Prerequisite: MATH140. Jointly offered with: AOSC447. Credit only granted for: AOSC447 or AOSC647.

A comprehensive introductory course designed to prepare undergraduate and graduate students for applying machine learning techniques to solve real-world problems in Earth science. It emphasizes practical solution implementation, providing students with essential hands-on experience using the most popular open-source analytics tools based on Python, a general-purpose programming language. The course works through all steps in machine learning, from problem specification, data analytics to analytical solution, and applies advanced statistical and analytical algorithms to uncover hidden data relationships and transform them into predictive understanding or decision support. The topics covered include: Python programming, SciPy and Scikit-learn utility, data engineering, visualization, classifiers, regression models, canonical correlation analysis, structural equation models, decision trees, random forests, boosting machines, support vector machines, clustering, dimensionality reduction, principal component analysis, and neural networks.

0101	Xin-Zhong Liang TuTh 9:30am - 10:45am	Seats (Total: 15) ATL 2428
AM01	Xin-Zhong Liang TuTh 9:30am - 10:45am	Seats (Total: 1) ATL 2428

AOSC675 **Carbon Cycle and Climate: Past, Present, and Future**

Credits: 3 Grading Method: Regular, Audit, Sat-Fail

Jointly offered with AOSC475. Credit only granted for: AOSC475 or AOSC6 75.

The fundamentals of the Earth's carbon cycle, a key biogeochemical cycle that controls Earth's climate and life. The changing characteristics of the carbon cycle on several timescales, ranging from geological, interannual, and the more recent anthropogenic influences on carbon cycle and climate. The carbon cycle in the atmosphere, land, ocean, and the biosphere. The underlying human activities such as fossil fuel burning and deforestation that are responsible for the increase in the atmosphere CO2 and our future options in dealing with the carbon problem such as alternative energy and carbon sequestration.

0101	Ning Zeng TuTh 11:00am - 12:15pm	Seats (Total: 10) ATL 2416
AM01	Ning Zeng TuTh 11:00am - 12:15pm	Seats (Total: 1) ATL 2416

AOSC798 **Directed Graduate Research**

Credits: 1-3 Grading Method: Sat-Fail

Contact department for information to register for this course.

AOSC898 **Pre-Candidacy Research**

Credits: 1-8 Grading Method: Regular, Sat-Fail

Contact department for information to register for this course.

AOSC899 **Doctoral Dissertation Research**

(Perm req)

Credits: 6 Grading Method: Sat-Fail

Contact department for information to register for this course.

ARAB Arabic Spring 2020

ARAB101 **Elementary Arabic I**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Introduction to modern standard Arabic in both its spoken and written form. Equal emphasis on all four skill areas: speaking, listening, reading, and writing.

Contact department for information to register for this course.

ARAB105 **Elementary Modern Standard Arabic III-IV**

Credits: 6 Grading Method: Regular, Pass-Fail, Audit

Prerequisite: ARAB104; or must have appropriate Foreign Language Placement Test (FLPT) score. Restriction: Must not be a fluent/native speaker of Arabic.

Continuation of ARAB104, developing further linguistic proficiency in Standard Arabic, both written and formal spoken. Covers an extended range of situation-based texts and topics that build vocabulary, grammar, general communicative competence and cultural awareness.

0101	Samah Al-salami MWF 10:00am - 11:50am	Seats (Total: 15) HJP 2118
0301	Lutf Alkebsi MWF 12:00pm - 1:50pm	Seats (Total: 15) HJP 2118

ARAB205 **Intermediate Modern Standard Arabic II**

Credits: 6 Grading Method: Regular, Pass-Fail, Audit CORE: HO

Prerequisite: ARAB204; or must have appropriate Foreign Language Placement Test (FLPT) score. Restriction: Must not be a fluent/native speaker of Arabic.

Continuation of ARAB204, with exposure to a wide range of Arabic texts from different domains. Focus on vocabulary, more complex grammatical forms, and a better understanding of the formal aspects of using MSA as well as the cultural aspects of using the language.

0101	Samah Al-salami MWF 12:00pm - 1:50pm	Seats (Total: 15) HJP 3142
0201	Lutf Alkebsi MWF 10:00am - 11:50am	Seats (Total: 15) HJP 3142

ARAB207 **Egyptian Colloquial Arabic II**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Prerequisite: ARAB206; or students who have taken courses with comparable content may contact the department. Restriction: Must not be a fluent/native speaker of Arabic.

Further develops communicative skills and cultural knowledge in Egyptian Arabic, extending range of contexts and types of social interaction. Focuses on various aspects of Egyptian popular culture.

0101	Ahmed Hanafy TuTh 12:30pm - 1:45pm	Seats (Total: 15) HJP 3142

ARAB298K **Special Topics in Arabic Studies; Reformers, Radicals, and Revolutionaries: The Middle East in the Twentieth Century**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Language and content to be announced when course is offered.

Cross-listed with HIST245 and RELS219K. Credit granted for HIST245, ARAB298K, or RELS219K.

0101	Peter Wien TuTh 11:00am - 12:15pm	Seats (Total: 36) AJC 2119
SA23	Lindsey Sitler Contact instructor or department for details.	Seats (Total: 0)

ARAB305 **Advanced Modern Standard Arabic II**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Prerequisite: ARAB304; or students who have taken courses with comparable content may contact the department. Restriction: Must not be a fluent/native speaker of Arabic.

Further advanced grammar, reading, writing, speaking in Arabic; study of current issues within the Arab World.

0101	Muna Husain TuTh 2:00pm - 3:15pm F 2:00pm - 2:50pm	Seats (Total: 10) HJP 2118 HJP 2118	 Lab

0201	Ahmed Hanafy	Seats (Total: 10)	
	MW 3:00pm - 4:15pm	HJP 3142	
	F 3:00pm - 3:50pm	HJP 3142	Lab

ARAB398I **Special Topics in Arabic Studies; Secrets and Mysteries of Arabic Grammar**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

In-depth study of a particular aspect of Arabic culture, literature, and language. Specific topic to be announced when offered. Taught in Arabic.

Prerequisite: ARAB205. Taught in Arabic.

0101	Valerie Anishchenkova	Seats (Total: 15)
	MW 3:30pm - 4:45pm	HJP 2118

ARAB398T **Special Topics in Arabic Studies; Arabic Literature in Translation**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

In-depth study of a particular aspect of Arabic culture, literature, and language. Specific topic to be announced when offered. Taught in Arabic.

This course covers a variety of Arabic literary, cinematic, visual, virtual and other cultural material that is based on autobiographical storytelling. We will explore the issues of personal and collective identities in these works, focusing on the relationship between the individual and their society. Questions of nationalism, religious fundamentalism, Islamic feminism, and various socio-cultural movements will be discussed from the perspective of individual identity-making. Taught in English.

0101	Valerie Anishchenkova	Seats (Total: 25)
	MW 2:00pm - 3:15pm	HJP 2118

ARAB499R **Special Topics in Arabic Studies; The New Arab Gulf: Weirdos, Migrants, and Rebels**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

In-depth study of particular aspect of Arabic culture, literature and language. Specific topic to be announced when course is offered.

Prerequisite: ARAB305. Taught in Arabic.

0101	Muna Husain	Seats (Total: 15)
	TuTh 12:30pm - 1:45pm	HJP 2118

ARAB499Z **Special Topics in Arabic Studies; Moroccan Society and Culture**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

In-depth study of particular aspect of Arabic culture, literature and language. Specific topic to be announced when course is offered.

Prerequisite: ARAB305. Taught in Arabic.

0101	Ahmed Hanafy TuTh 11:00am - 12:15pm	Seats (Total: 15) HJP 2118	

ARCH Architecture Spring 2020

ARCH170 **Design Thinking and Architecture**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit CORE: HA General Education: DSHU

Examines conceptual, perceptual, behavioral, and technical aspects of the built environment, and methods of analysis, problem-solving, and design implementation.

0101	Elijah Northen W 9:00am - 9:50am Class time/details on ELMs F 9:00am - 9:50am	Seats (Total: 19) ARC 0204 ONLINE ARC 1101	Discussion
0102	Elijah Northen W 9:00am - 9:50am Class time/details on ELMs F 9:00am - 9:50am	Seats (Total: 19) ARC 0204 ONLINE ARC 1103	Discussion
0103	Elijah Northen W 9:00am - 9:50am Class time/details on ELMs F 9:00am - 9:50am	Seats (Total: 19) ARC 0204 ONLINE ARC 1105	Discussion
0104	Elijah Northen W 9:00am - 9:50am Class time/details on ELMs F 12:00pm - 12:50pm	Seats (Total: 19) ARC 0204 ONLINE ARC 1101	Discussion

0105	Elijah Northen W 9:00am - 9:50am Class time/details on ELMs F 12:00pm - 12:50pm	Seats (Total: 19) ARC 0204 ONLINE ARC 1103	Discussion

ARCH200 **Design Media and Representation I**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Restriction: Must be in a major in ARCH-Architecture Program.

Study of architectural representation in physical and digital design media. Examine visual literacy and visual communications through applied drawing, modeling and visual making to explore the role of design media and representation in design and design thinking.

0101	Matthew Geiss, Michael Abrams W 8:00am - 9:50am W 10:00am - 11:50am	Seats (Total: 20) Location: TBA Location: TBA	Discussion
0102	Michael Abrams, Matthew Geiss W 8:00am - 9:50am W 12:00pm - 1:50pm	Seats (Total: 20) Location: TBA Location: TBA	Discussion
0103	Matthew Geiss, Michael Abrams W 8:00am - 9:50am W 10:00am - 11:50am	Seats (Total: 20) Location: TBA Location: TBA	Discussion
0104	Matthew Geiss, Michael Abrams W 8:00am - 9:50am W 12:00pm - 1:50pm	Seats (Total: 20) Location: TBA Location: TBA	Discussion
0105	Matthew Geiss, Michael Abrams W 8:00am - 9:50am W 10:00am - 11:50am	Seats (Total: 20) Location: TBA Location: TBA	Discussion
0106	Michael Abrams, Matthew Geiss W 8:00am - 9:50am W 12:00pm - 1:50pm	Seats (Total: 20) Location: TBA Location: TBA	Discussion
0107	Matthew Geiss, Michael Abrams W 8:00am - 9:50am W 10:00am - 11:50am	Seats (Total: 15) Location: TBA Location: TBA	Discussion

0108	Matthew Geiss, Michael Abrams W 8:00am - 9:50am W 12:00pm - 1:50pm	Seats (Total: 15) Location: TBA Location: TBA	 Discussion

ARCH225 **History of World Architecture I**

Credits: 3 | Grading Method: Regular, Pass-Fail, Audit | General Education: DSHU

Pre-1500 World Architecture survey course - History of Architecture structured to develop critical thinking and visually literacy with regard to the worldwide legacy of design thinking and cultural production through architecture

0101	Joseph Williams TuTh 9:30am - 10:45am	Seats (Total: 125) Location: TBA

ARCH271 **People, Planet, and Profit: Building Sustainable Places**

Credits: 3 | Grading Method: Regular, Pass-Fail | General Education: DSSP

Cross-listed with RDEV250. Credit only granted for: ARCH271 or RDEV250.

An introduction to the four disciplines represented in the School: architecture and urban design, community planning, historic preservation, and real estate development, that work to create a more sustainable environment for the future to create a more sustainable environment for the future using our interpretation of the quadruple bottom line: socio-cultural, economic, environmental, and design sustainability. Students will be provided with an understanding of the fundamental scholarship and processes of each of these disciplines and examine the intersections between them. Additionally, they will learn by applying the approaches of the four disciplines through a series of field studies.

Cross-listed with RDEV250. Credit granted for ARCH271 or RDEV250.

0101	Wayne Curtis TuTh 11:00am - 12:15pm	Seats (Total: 85) TWS 0310

ARCH289I **Sustainability at College Park**

Credits: 3 | Grading Method: Regular, Pass-Fail, Audit | CORE: IE | General Education: DSNS, DSSP, SCIS

0101	Ralph Bennett Tu 5:00pm - 6:15pm Th 5:00pm - 6:15pm	Seats (Total: 18) ARC 0204 ARC 1125	 Discussion

0102	Ralph Bennett Tu 5:00pm - 6:15pm Th 5:00pm - 6:15pm	Seats (Total: 18) ARC 0204 ARC 1123	Discussion
0103	Ralph Bennett Tu 5:00pm - 6:15pm Th 5:00pm - 6:15pm	Seats (Total: 18) ARC 0204 ARC 1101	Discussion
0104	Ralph Bennett Tu 5:00pm - 6:15pm Th 3:30pm - 4:45pm	Seats (Total: 18) ARC 0204 ARC 1105	Discussion
0105	Ralph Bennett Tu 5:00pm - 6:15pm Th 3:30pm - 4:45pm	Seats (Total: 18) ARC 0204 ARC 1101	Discussion

ARCH400 **Architecture Design Studio I**

(Perm req)

Credits: 6 Grading Method: Regular, Pass-Fail, Audit

Restriction: Must be in a major in ARCH-Architecture Program; and permission of ARCH-Architecture Program.

Introduction to architectural design with particular emphasis on conventions and principles of architecture, visual and verbal communication skills, formal analysis, design process, spatial composition, architectural promenade, basic program distribution, and elementary constructional and environmental responses.

0101	Michael Abrams MWF 2:00pm - 6:00pm	Seats (Total: 27) Location: TBA	
0102	Kenneth Filler MWF 2:00pm - 6:00pm	Seats (Total: 27) Location: TBA	
0103	Joseph McKenley MWF 2:00pm - 6:00pm	Seats (Total: 27) Location: TBA	
0104	Alex Donahue MWF 2:00pm - 6:00pm	Seats (Total: 27) Location: TBA	
0105	Olumide Akinsade MWF 2:00pm - 6:00pm	Seats (Total: 27) Location: TBA	

ARCH402 **Architecture Design Studio III**

Credits: 6 | Grading Method: Regular, Pass-Fail, Audit | General Education: DSSP

Prerequisite: Minimum grade of C- in ARCH401. Restriction: Must be in Architecture (B.S.) program.

Architectural design studio with emphasis on building and facade typologies, the development of architectural promenade and sequence, public and/or civic infill buildings dependent upon the architectural promenade, and urban housing types of varying densities. The architect's obligations to urban context are explored in many dimensions including historical, typological, and physical.

0101	Brittany Williams MWF 2:00pm - 6:00pm	Seats (Total: 54) Location: TBA
0102	Brittany Williams, Douglas Crawford MWF 2:00pm - 6:00pm	Seats (Total: 18) Location: TBA
0103	Rayya Newman, Brittany Williams MWF 2:00pm - 6:00pm	Seats (Total: 18) Location: TBA
0104	Brittany Williams, Lindsey May MWF 2:00pm - 6:00pm	Seats (Total: 15) Location: TBA
0105	Julie Gabrielli MWF 2:00pm - 6:00pm	Seats (Total: 11) Location: TBA

ARCH405 **Graduate Architecture Design Studio II**

Credits: 6 | Grading Method: Regular, Pass-Fail, Audit

Prerequisite: Minimum grade of C- in ARCH404. Restriction: Must be in Architecture (Master's) program.

Architectural design studio with emphasis on building and facade typologies, the development of architectural promenade and sequence, public and/or civic infill buildings dependent upon the architectural promenade, and urban housing types of varying densities. The architect's obligations to urban context are explored in many dimensions including historical, typological, and physical. Offered spring only.

0101	Julie Gabrielli MWF 2:00pm - 6:00pm	Seats (Total: 14) Location: TBA

ARCH407 **Graduate Architecture Design IV**

Credits: 6

Grading Method: Regular, Pass-Fail, Audit

Prerequisite: Minimum grade of C- in ARCH406. Restriction: Must be in Architecture (Master's) program.

Studio problems and theories concentrating on urbanism and urban design techniques. Issues and sites range from high-density urban in-fill to suburban and greenfield development in American and other contexts. Studio theories explore such topics as Contextualism, Neo-Traditional design, Transit Oriented Development, density, sustainable development, building typology, and street design.

A Fearless Ideas Course from the Academy for Innovation & Entrepreneurship (AIE): http://ter.ps/iamFEARLESS Click here for more information on the Fearless Ideas Courses.

0101	Jana VanderGoot MWF 2:00pm - 6:00pm	Seats (Total: 12) Location: TBA

ARCH408 **Special Topics Architecture Design Studio**

Credits: 6

Grading Method: Regular, Pass-Fail, Audit

Design Studio course to examine topical problems in architecture and urban design.

0101	Ronit Eisenbach MWF 2:00pm - 6:00pm	Seats (Total: 30) Location: TBA
0102	James Tilghman MWF 2:00pm - 6:00pm	Seats (Total: 18) Location: TBA

ARCH419 **Independent Studies in Architectural Technology**

(Perm req)

Credits: 3

Grading Method: Regular, Pass-Fail, Audit

Proposed work must have a faculty sponsor and receive approval of the Architecture Program Curriculum Committee.

2901	Instructor: TBA Contact instructor or department for details.	Seats (Total: 1)

ARCH420 **History of American Architecture**

Credits: 3

Grading Method: Regular, Pass-Fail, Audit

General Education: DSHS

Prerequisite: ARCH225 and ARCH226; or ARCH425 and ARCH426; or permission of the ARCH-Architecture program.

American architecture from the late 17th to the 21st century.

0101	Caroline Hickman	Seats (Total: 30)
	TuTh 11:00am - 12:15pm	EDU 1121

ARCH423 **History of Roman Architecture**

(Perm req)

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Prerequisite: ARCH225 and ARCH226; or ARCH425 and ARCH426; or permission of the ARCH-Architecture Program.

Survey of Roman architecture from 500 B.C. To A.D. 325.

0101	Joseph Williams	Seats (Total: 15)
	TuTh 12:30pm - 1:45pm	ASY 3217

ARCH425 **History of Architecture I**

(Perm req)

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Restriction: Permission of ARCH-Architecture Program. Credit only granted for: ARCH225 or ARCH425. Additional information: Graduate architecture history course requires additional recitation section and additional coursework tied to survey lectures.

Pre-1500 World Architecture survey course - History of Architecture structured to develop critical thinking and visually literacy with regard to the worldwide legacy of design thinking and cultural production through architecture. Structured to nurture critical thinking and visually literacy with regard to the worldwide legacy of architecture. The work in the course will involve the evaluation of sources and arguments in reading architectural history. Architecture will be framed relative to ways of thinking, religious beliefs, cultural heritage, and cultural values.

0101	Joseph Williams	Seats (Total: 10)
	TuTh 9:30am - 10:45am	Location: TBA

ARCH427 **Theories of Architecture**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Prerequisite: ARCH426; or permission of ARCH-Architecture Program. Restriction: Must be in Architecture (B.S.) program.

Survey of architectural theories - theories of architectural design, representation and urban design from antiquity to the present day.

0101	Christian Calleri	Seats (Total: 15)
	TuTh 7:00pm - 8:15pm	ASY 3215

ARCH428F **Selected Topics in Architectural History; History of Modern Architecture**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Selected Topics in Architectural History

0101	Matthew Bell	Seats (Total: 15)
	TuTh 9:00am - 10:15am	ARC 1103

ARCH428H **Selected Topics in Architectural History; The Seven Wonders of Spain, Spanish Architecture History**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Selected Topics in Architectural History

Contact department for information to register for this course.

ARCH428U **Selected Topics in Architectural History; A Survey of the History of Latin American Architecture and Urbanism in Context**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Selected Topics in Architectural History

0101	Juan Burke	Seats (Total: 20)
	TuTh 2:00pm - 3:15pm	JMZ 1122

ARCH428W **Selected Topics in Architectural History; Writing Architecture in Practice**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Selected Topics in Architectural History

0101	Lindsey May W 9:00am - 11:40am	Seats (Total: 10) ARC 1125

ARCH429 **Independent Studies in Architectural History**

Credits: 1-4

Grading Method: Regular, Pass-Fail, Audit

Proposed work must have a faculty sponsor and receive approval of the Architecture Program Curriculum Committee.

0101	Instructor: TBA Contact instructor or department for details.	Seats (Total: 5)

ARCH445 **Visual Analysis of Architecture**

Credits: 3

Grading Method: Regular, Pass-Fail, Audit

Prerequisite: ARCH400; or permission of ARCH-Architecture Program. Restriction: Must be in Architecture (B.S.) program.

Study of visual principles of architectural and urban precedents through graphic analysis. Exercises include on-site observation, documentation and analysis. Focuses on the development of an architect's sketchbook as a tool for life-long learning.

0101	Michael Abrams M 10:00am - 12:40pm	Seats (Total: 30) ARC 1105

ARCH448W **Selected Topics in Visual Studies in Architecture; Survey and Drawing: Mapping Florence Architecture**

Credits: 3

Grading Method: Regular, Pass-Fail, Audit

Selected Topics in Visual Studies in Architecture

Contact department for information to register for this course.

ARCH456 **Great Cities**

Credits: 3

Grading Method: Regular, Pass-Fail, Audit

Prerequisite: Permission of ARCH-Architecture Program.

Case studies from a selection of the great cities of the world.

0101	Daniel Curry	Seats (Total: 19)
	TuTh 11:00am - 12:15pm	ARC 1115

ARCH458B **Selected Topics in Urban Design; Urban Florence: Traveling Across Layers**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Selected Topics in Urban Design

Contact department for information to register for this course.

ARCH461 **Sustainability in Architecture**

(Perm req)

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Restriction: Permission of ARCH-Architecture Program. Credit only granted for: ARCH418S or ARCH461. Formerly: ARCH418S.

Strategies of sustainability as related to the broader context of architectural problem solving.

0101	Instructor: TBA	Seats (Total: 1)
	Contact instructor or department for details.	

ARCH463 **Sustainable Systems in Architecture**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Prerequisite: ARCH462. Restriction: Must be in a major in undergraduate or graduate ARCH program.

Sustainable systems in architecture examines the nature of the global problem, environmental economics, understanding the local environment, bioclimatic design, solar control and shading, solar access zoning, residential scale energy design issues, commercial scale energy design issues, and urban scale energy design issues.

0101	Andrew Linn	Seats (Total: 120)
	TuTh 3:30pm - 4:45pm	ARC 0204

ARCH465 **Architectural Structures II**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Prerequisite: ARCH464 and PHYS121; and MATH120 or MATH140, or equivalent; or permission of the ARCH-Architecture Program. Restriction: Must be in either BS in Architecture or M. Architecture Program. Credit only granted for: ARCH412 or ARCH465.

The basic principles of elastic behavior for different materials such as wood, steel, concrete, and composite materials and compares the properties and applications of materials generally will be covered. It investigates cross sectional stress and strain behavior in flexure and in shear, and torsion as well as the stability of beams and columns. The qualitative behavior of combined stresses and fracture in materials is also covered.

0101	Ming Hu TuTh 9:30am - 10:45am	Seats (Total: 120) ARC 0204

ARCH470 **Computer Applications in Architecture**

(Perm req)

Credits: 3 Grading Method: Regular, Pass-Fail

Prerequisite: ARCH400; or permission of ARCH-Architecture Program. Restriction: Must be in Architecture (B.S.) program.

Introduction to computer utilization, with emphasis on architectural applications.

0101	Scott Deisher Tu 7:00pm - 9:30pm Th 7:00pm - 8:15pm	Seats (Total: 22) ARC 1115 ARC 1115

ARCH472 **Building Information Modeling Communication and Collaboration**

(Perm req)

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Restriction: Must be in a major in ARCH-Architecture Program; or must be in the Construction Project Management Minor. Credit only granted for: ARCH678I or ARCH472. Formerly: ARCH678I.

Building Information Modeling is explored as pertains to collaboration and communication in the design and construction of buildings and building systems. Practical and empirical learning using BIM software and case studies of real world projects and construction scenarios.

0101	Douglas Crawford WF 9:30am - 10:45am	Seats (Total: 20) ARC 1115
0102	Douglas Crawford WF 11:00am - 12:15pm	Seats (Total: 20) ARC 1115

ARCH478C **Selected Topics in Architecture; Careers in Architecture**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Selected Topics in Architecture

0101	Vytenis Gureckas	Seats (Total: 30)
	Tu 4:00pm - 6:30pm	ARC 1101

ARCH478G **Selected Topics in Architecture; The Villa and the Garden**

Credits: 1-4 Grading Method: Regular, Pass-Fail, Audit

Selected Topics in Architecture

Contact department for information to register for this course.

ARCH478N **Selected Topics in Architecture; Weaving Objects, Weaving Buildings, Weaving Drawings**

(Perm req)

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Selected Topics in Architecture

This course aims to bring a team of students together to study the deep histories of weaving in human culture through precedent research, and to investigate the underlying orders of woven objects (hats, baskets) and structures (courtyard houses, stadiums and arenas, religious spaces, huts, nests) through the creation of two-dimensional drawings/diagrams.

0101	Andrew Linn	Seats (Total: 10)
	TuTh 2:00pm - 3:15pm	ARC 1123

ARCH478O **Selected Topics in Architecture; Three-Dimensional Digital Documentation: Using Laser-based Measurement Systems**

(Perm req)

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Selected Topics in Architecture

Cross-listed with ARCH678O, ANTH448R, ANTH632, and HISP619O. Credit only granted for: ARCH478O, ARCH678O, ANTH448R, ANTH632 or HISP619O. This course focuses on the fundamentals of documenting components of the built environment and the landscapes in which they are located. It focuses on the use of lasers to calculate 3-D measurements at various scales, from objects, to buildings, and landscapes. It will cover data management and archiving, field documentation processes, and post-processing of scan point clouds. This includes the production of deliverables for clients or project partners, such as plans, elevations, orthoimagery, and cleaned exported point clouds in formats that are compatible with Autodesk software and other CAD or rendering software platforms. This course is intended for students working in fields that rely on accurately documenting components of the built environment in three dimension, including architects, engineers, preservationists, archaeologists, or digital designers.

0101	Stefan Woehlke	Seats (Total: 15)
	W 2:00pm - 4:40pm	ARC 1115

ARCH478Q **Selected Topics in Architecture; Gender, Sex, and Architecture**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Selected Topics in Architecture

During this discussion seminar, we will use intersectional feminist theory and critique to unpack how cultural norms around gender and sex are built into architecture via government regulation including laws and code, conventional wisdom, and unconscious bias. Through the examination of cultural artifacts such as literature, art, and film, we will uncover social notions of gender and sex, and trace parallels of how changing notions of sex, sexuality, and gender has been represented or not in the architecture. Analysis of a wide range of architectural typologies and styles will aid in the investigation of how the built environment reflects and shapes our ideas about gender and sex. Scholarship will be undertaken to elaborate on the central questions of: What would gender equitable architecture be like? What would sex-positive architecture be like?

0101	Siobhan Steen	Seats (Total: 19)
	M 7:00pm - 9:40pm	ARC 1123

ARCH478T **Selected Topics in Architecture; Ecological Design Thinking**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Selected Topics in Architecture

Restriction: Open to all disciplines; subject to instructor approval. The etymology and definition of "ecology" contain aspects of house, of relationships and reciprocity, of the living environment and of systems. We will engage with all of these concepts in this course. Design thinking is a form of systems thinking, in which many variables and scales, requirements and ideas interact to form a coherent, dynamic whole. We will confront difficult truths, negotiate contradictions, and find ways to be an effective advocate and change agent.

0101	Julie Gabrielli	Seats (Total: 10)
	W 9:00am - 11:40am	ARC 1103

ARCH601 **Topical Design Studio VI**

(Perm req)

Credits: 6 Grading Method: Regular, Audit, Sat-Fail

Restriction: Permission of ARCH-Architecture Program.

Topical architectural design studio with concentration on advanced topical inquiry addressing but not limited to: architectural competitions, sustainable design, theoretica/conceptual issues, programmatic, contextual, and/or technical issues.

Restricted to ARCH, URPD or ARCP majors.

0101	Madlen Simon	Seats (Total: 40)	
	MWF 2:00pm - 6:00pm	Location: TBA	Lab

ARCH628W **Selected Topics in Architectural History; Writing Architecture in Practice**

Credits: 3 Grading Method: Regular, Audit, Sat-Fail

Graduate Selected Topics in Architectural History

0101	Lindsey May	Seats (Total: 5)
	W 9:00am - 11:40am	ARC 1125

ARCH635 **Seminar in the History of Modern Architecture**

Credits: 3 Grading Method: Regular, Audit, Sat-Fail

Prerequisite: ARCH225 and ARCH226; or ARCH425 and ARCH426; or permission of the ARCH-Architecture Program.

Advanced investigation of historical problems in modern architecture.

0101	Matthew Bell	Seats (Total: 15)
	TuTh 9:00am - 10:15am	ARC 1103

ARCH654 **Urban Development and Design Theory**

(Perm req)

Credits: 3 Grading Method: Regular, Audit, Sat-Fail

Prerequisite: ARCH225 and ARCH226; or ARCH425 and ARCH426; or permission of the ARCH-Architecture Program. Restriction: Permission of ARCH-Architecture Program.

Advanced investigation into the history, and practice of urban design, planning, and development.

0101	Juan Burke	Seats (Total: 50)
	TuTh 11:00am - 12:15pm	ARC 1101

ARCH655 **Urban Design Seminar**

Credits: 3 Grading Method: Regular, Audit, Sat-Fail

Prerequisite: ARCH654; or permission of ARCH-Architecture Program. Credit only granted for: ARCH451 or ARCH655. Formerly: ARCH451.

Advanced investigation into problems of analysis and evaluation of the design of urban areas, spaces, and complexes with emphasis on physical and social considerations; effects of public policies through case studies. Field observations.

0101	Eric Jenkins	Seats (Total: 15)
	TuTh 12:30pm - 1:45pm	JMZ 0125

ARCH670 **Advanced Computer Applications in Architecture**

Credits: 3 Grading Method: Regular, Audit, Sat-Fail

Restriction: Permission of ARCH-Architecture Program. Credit only granted for: ARCH678C or ARCH670. Formerly: ARCH678C.

Advanced use of computer technology in design. Use of digital design processes and conceptual methodologies to study design alternatives and realization. Methods and techniques of digital design representation, simulation, or fabrication to explore and test concepts and integration of digital technologies into the architectural design process.

0101	Hiroshi Jacobs	Seats (Total: 15)
	W 7:00pm - 9:40pm	ARC 1115

ARCH678B **Advanced Selected Topics in Architecture; Health Scores: Community Design for Mattaponi, Maryland**

(Perm req)

Credits: 3

Grading Method: Regular, Audit, Sat-Fail

Graduate Selected Topics in Architecture.

0101	Jana VanderGoot	Seats (Total: 5)
	Tu 6:00pm - 8:40pm	Location: TBA

ARCH678N **Advanced Selected Topics in Architecture; Weaving Objects, Weaving Buildings, Weaving Drawings**

(Perm req)

Credits: 3

Grading Method: Regular, Audit, Sat-Fail

Graduate Selected Topics in Architecture.

This course aims to bring a team of students together to study the deep histories of weaving in human culture through precedent research, and to investigate the underlying orders of woven objects (hats, baskets) and structures (courtyard houses, stadiums and arenas, religious spaces, huts, nests) through the creation of two-dimensional drawings/diagrams.

0101	Andrew Linn	Seats (Total: 9)
	TuTh 2:00pm - 3:15pm	ARC 1123

ARCH678O **Advanced Selected Topics in Architecture; Three-Dimensional Digital Documentation: Using Laser-based Measurement Systems**

(Perm req)

Credits: 3

Grading Method: Regular, Audit, Sat-Fail

Graduate Selected Topics in Architecture.

Cross-listed with ARCH478O, ANTH448R, ANTH632, and HISP619O. Credit only granted for: ARCH478O, ARCH678O, ANTH448R, ANTH632 or HISP619O. This course focuses on the fundamentals of documenting components of the built environment and the landscapes in which they are located. It focuses on the use of lasers to calculate 3-D measurements at various scales, from objects, to buildings, and landscapes. It will cover data management and archiving, field documentation processes, and post-processing of scan point clouds. This includes the production of deliverables for clients or project partners, such as plans, elevations, orthoimagery, and cleaned exported point clouds in formats that are compatible with Autodesk software and other CAD or rendering software platforms. This course is intended for students working in fields that rely on accurately documenting components of the built environment in three dimension, including architects, engineers, preservationists, archaeologists, or digital designers.

0101	Stefan Woehlke W 2:00pm - 4:40pm	Seats (Total: 15) ARC 1115

ARCH678Q **Advanced Selected Topics in Architecture; Gender, Sex, and Architecture**

Credits: 3 Grading Method: Regular, Audit, Sat-Fail

Graduate Selected Topics in Architecture.

During this discussion seminar, we will use intersectional feminist theory and critique to unpack how cultural norms around gender and sex are built into architecture via government regulation including laws and code, conventional wisdom, and unconscious bias. Through the examination of cultural artifacts such as literature, art, and film, we will uncover social notions of gender and sex, and trace parallels of how changing notions of sex, sexuality, and gender has been represented or not in the architecture. Analysis of a wide range of architectural typologies and styles will aid in the investigation of how the built environment reflects and shapes our ideas about gender and sex. Scholarship will be undertaken to elaborate on the central questions of: What would gender equitable architecture be like? What would sex-positive architecture be like?

0101	Siobhan Steen M 7:00pm - 9:40pm	Seats (Total: 1) ARC 1123

ARCH678T **Advanced Selected Topics in Architecture; Ecological Design Thinking**

Credits: 3 Grading Method: Regular, Audit, Sat-Fail

Graduate Selected Topics in Architecture.

0101	Julie Gabrielli W 9:00am - 11:40am	Seats (Total: 15) ARC 1103

ARCH679 **Advanced Independent Studies in Architecture; Independent Study in Architecture**

Credits: 1-4 Grading Method: Regular, Audit, Sat-Fail

Proposed work must have a faculty sponsor and receive approval of the Architecture Program Curriculum Committee.

Contact department for information to register for this course.

ARCH688C **Advanced Selected Topics in Architectural Technologies; Construction Automation & Robotics**

Credits: 3 Grading Method: Regular, Audit, Sat-Fail

Graduate Selected Topics in Architectural Technologies.

Cross-listed with ENCE622. Credit only granted for ENCE622 or ARCH688C.

0101	Miroslaw Skibniewski	Seats (Total: 25)
	Tu 4:00pm - 6:40pm	JMP 2217

ARCH797 **Thesis Proseminar**

Credits: 3 Grading Method: Regular, Audit, Sat-Fail

Prerequisite: ARCH601.

Directed research and preparation of thesis program.

0101	James Tilghman	Seats (Total: 15)
	TuTh 9:00am - 10:15am	ARC 1105

ARCH798 **Thesis in Architecture**

(Perm req)

Credits: 3 Grading Method: Regular, Sat-Fail

Complements the research of ARCH 799, with presentation of the design research to student's thesis committee.

Contact department for information to register for this course.

ARCH799 **Master's Thesis Research**

Credits: 1-6 Grading Method: Sat-Fail

Development of master's thesis.

Restricted to ARCH majors only.

Contact department for information to register for this course.

AREC Agricultural and Resource Economics Spring 2020

AREC250 **Elements of Agricultural and Resource Economics**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit CORE: SB General Education: DSHS

Credit only granted for: ECON200, AREC240 or AREC250.

An introduction to economic principles of production, marketing, agricultural prices and incomes, farm labor, credit, agricultural policies, and government programs.

0101	Jeffrey Hunt TuTh 9:30am - 10:45am	Seats (Total: 80) TYD 2106	

AREC326 **Intermediate Applied Microeconomics**

Credits: 3 Grading Method: Regular, Pass-Fail

Prerequisite: ECON200, AREC250, or AREC240; and ECON201. And MATH120, MATH130, MATH136, or MATH140; or must have completed MATH220. Credit only granted for: ECON306, ECON326, AREC489M, or AREC326. Formerly: AREC489M.

Deepens and broadens your ability to apply rigorous economic analysis skills to a broad range of problems.

0101	Kartik Misra TuTh 11:00am - 12:15pm	Seats (Total: 45) BPS 0283	

AREC345 **Global Poverty and Economic Development**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit General Education: DSHS, DVUP

This interdisciplinary course explores social and economic development around the world. Topics include geography, democratization, political instability and conflict, health and education, agricultural development, micro-entrepreneurship, and an introduction to impact evaluation methods used to evaluate the efficacy of public policy aimed at alleviating poverty.

0101	Steven Jaffee MW 11:00am - 11:50am F 11:00am - 11:50am	Seats (Total: 40) BPS 1250 HBK 0109	Discussion
0102	Steven Jaffee MW 11:00am - 11:50am F 12:00pm - 12:50pm	Seats (Total: 40) BPS 1250 HBK 0109	Discussion

AREC360 **Global Agriculture: Developing Extension Education & Agriculture Technologies in Africa**

(Perm req)

Credits: 3 Grading Method: Regular, Pass-Fail, Audit General Education: DSSP, DVCC

Restriction: Permission of AGNR-Agricultural & Resource Economics department.

Identifies challenges faced by farmers in Nimba County, Liberia, and works collaboratively across borders to discuss these challenges and develop extension education programming that will be implemented in the region in order to empower local farmers. The course is designed to create a paradigm shift for both cohorts of students who will educate and learn from each other in what is now becoming a critical context - the globalized workspace. UMD and LICC students will be grouped together to identify and develop particular thematic areas most needed by local farmers, and then as a cohort create a week-long extension program to be implemented on the ground.

For more course information or to obtain permission to enroll, contact Jill Janofsky at jjanofsk@umd.edu.

0101	Taryn Devereux	Seats (Total: 12)
	W 10:00am - 12:50pm	SYM 2200B

AREC365 **World Hunger, Population, and Food Supplies**

Credits: 3 | Grading Method: Regular, Pass-Fail, Audit | , D | General Education: DVUP

An introduction to the problem of world hunger and possible solutions to it. World demand, supply, and distribution of food. Alternatives for leveling off world food demand, increasing the supply of food, and improving its distribution. Environmental limitations to increasing world food production.

0101	Kartik Misra	Seats (Total: 300)
	TuTh 2:00pm - 3:15pm	ARC 0204

AREC386 **Experiential Learning**

(Perm req)

Credits: 3-6 | Grading Method: Regular, Pass-Fail

Prerequisite: Permission of AGNR-Agricultural & Resource Economics department. Restriction: Junior standing or higher.

Contact department for information to register for this course.

AREC388 **Honors Thesis Research**

(Perm req)

Credits: 3-6 | Grading Method: Regular, Pass-Fail

Undergraduate honors thesis research conducted under the direction of an AGNR faculty member in partial fulfillment of the requirements of the College of AGNR Honors Program. The thesis will be defended to a faculty committee.

Contact department for information to register for this course.

AREC399 **Special Problems**

Credits: 1-3

Grading Method: Regular, Pass-Fail, Audit

Concentrated reading and study in some phase of a problem in agricultural and/or natural resource economics.

Contact department for information to register for this course.

AREC433 **Food and Agricultural Policy**

Credits: 3

Grading Method: Regular, Pass-Fail, Audit

Prerequisite: ECON326 or AREC326; or students who have taken courses with comparable content may contact the department.

Economic and political context of governmental involvement in the farm and food sector. Historical programs and current policy issues. Analysis of economic effects of agricultural programs, their benefits and costs, and comparison of policy alternatives. Analyzes the interrelationship among international development, agricultural trade and general economic and domestic agricultural policies.

0101	James MacDonald	Seats (Total: 35)
	TuTh 3:30pm - 4:45pm	SYM 0215

AREC435 **Commodity Futures and Options**

Credits: 3

Grading Method: Regular, Pass-Fail, Audit

Prerequisite: AREC326; or ECON326; or students who have taken courses with comparable content may contact the department.

The economics and institutional features of commodity futures and options markets. Students will develop a basic understanding of the underlying price relationships between cash and futures markets and will apply this information to business risk management decision making.

0101	Dale Johnson	Seats (Total: 40)
	MW 3:30pm - 4:45pm	HBK 0103

AREC447 **The Economy of China**

Credits: 3

Grading Method: Regular, Pass-Fail, Audit

Prerequisite: AREC326, ECON306, or ECON326. Restriction: Must be in one of the following programs (Agricultural and Resource Economics; Agricultural and Resource Economics: Agribusiness).

An introductory survey course of economic development in China with emphasis on understanding the process of economic reform in mainland China since 1978.

0101	Jing Cai	Seats (Total: 13)
	TuTh 11:00am - 12:15pm	SYM 0200

AREC454 **The Economics of Climate Change**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Prerequisite: 1 course with a minimum grade of C- from (AREC326, ECON306, ECON326); and 1 course with a minimum grade of C- from (ECON230, ECON321, BMGT230). Cross-listed with: ECON484. Credit only granted for: AREC454 or ECON484.

The role of economics in the formation of climate policy; basic concepts of environmental economics including efficiency, externalities, and policy instruments; economic models of intertemporal decisions and decision making in the face of uncertainty. Applied economic analysis of specific issues and current policy initiatives.

0101	Anna Alberini	Seats (Total: 35)
	MW 2:00pm - 3:15pm	SYM 0215

AREC456 **Energy and Environmental Economics**

Credits: 3 Grading Method: Regular, Pass-Fail

Prerequisite: 1 course with a minimum grade of C- from (AREC326, ECON306, ECON326); and 1 course with a minimum grade of C- from (ECON230, ECON321, BMGT230). Cross-listed with: ECON486. Credit only granted for: AREC456 or ECON486.

Economic theory and empirical methods are used to study problems of energy, the environment, and the economy. It examines the extraction, production, and use of energy and market institutions and regulatory approaches used to correct market failures. Topics covered include: oil and natural gas markets, management and design of electricity markets, renewable energy, non-market valuation , climate change, and transportation policies.

0101	Joshua Linn	Seats (Total: 80)
	TuTh 12:30pm - 1:45pm	SYM 0200

AREC481 **Environmental Economics**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Prerequisite: 1 course with a minimum grade of C- from (AREC326, ECON306, ECON326); and 1 course with a minimum grade of C- from (ECON230, ECON321, BMGT230). Restriction: Must be in one of the following programs (Agricultural and Resource Economics; Agricultural and Resource Economics: Agribusiness; Environmental Science & Policy-Env Economics; Agricultural and Resource Economics: Environmental and Resource Economics; Economics Bachelor of Arts program). Cross-listed with: ECON481. Credit only granted for: ECON481 or AREC481.

An exploration of the use of economic incentives for protection of the environment and the determination of appropriate (or efficient) level of environmental quality. Also covers the choice of policy instruments for the attainment of environmental standards.

0101	Roberton Williams	Seats (Total: 80)	
	TuTh 2:00pm - 3:15pm	SYM 0200	

AREC610 **Microeconomic Applications in Agricultural and Resource Markets**

Credits: 3 Grading Method: Regular, Audit, Sat-Fail

Prerequisite: ECON603.

Applications of graduate level microeconomic analysis to the problems of agricultural and natural resource production and distribution including demand for agricultural output, the nature of agricultural supply decisions, decision making under uncertainty, valuation of natural resources, and exploitation of natural resources.

0101	Jorge Holzer Bilbao	Seats (Total: 25)	
	TuTh 9:30am - 10:45am	SYM 0215	
	Tu 3:30pm - 5:00pm	KEY 0121	Discussion

AREC624 **Applied Econometrics II**

Credits: 4 Grading Method: Regular, Audit, Sat-Fail

Prerequisite: AREC623.

Variations of the standard linear model, simultaneous equations estimation, nonlinear regression, nonlinear simultaneous equations estimation, static and dynamic panel data models, errors in variables, Hausman tests, discrete choice models such as conditional multinomial and mixed logit models, latent class models, semi-parametric estimation, varying parameter models, unobserved variables, time series models, and model selection procedures.

0101	Anna Alberini	Seats (Total: 30)	
	MW 10:00am - 12:30pm	SYM 0215	
	F 10:00am - 12:00pm	SYM 0115	Discussion

AREC699 **Special Problems in Agricultural and Resource Economics**

(Perm req)

Credits: 1-2 Grading Method: Regular, Audit, Sat-Fail

Intensive study and analysis of specific problems in the field of agricultural and resource economics, providing in-depth information in areas of special interest to the student.

Contact department for information to register for this course.

AREC783 **Environmental Taxation and Regulation**

Credits: 3 Grading Method: Regular, Audit, Sat-Fail

Prerequisite: ECON603 and ECON604; and graduate-level econometrics. Credit only granted for: AREC783 or AREC869W. Formerly: AREC869W.

The economics of policies to address environmental externalities. Specific topics include the theory of public goods and externalities, cost-benefit and cost-effectiveness analysis of environmental regulations, regulatory instrument choice under uncertainty, environmental policy in an economy with pre-existing tax distortions, monitoring and enforcement of environmental regulations, distributional effects of environmental policy, and regulation of intertemporal externalities.

0101	Roberton Williams	Seats (Total: 25)
	TuTh 11:00am - 12:15pm	SYM 0209

AREC784 **Energy Economics, Empirical Industrial Organization, and Public Policy**

Credits: 3 Grading Method: Regular, Sat-Fail

Prerequisite: ECON603, AREC623, and AREC624; or permission of instructor.

Energy markets and public policy, evaluating techniques for estimating market demand and supply and for evaluating policy intervention. Comparison of reduced-form and structural approaches. Applications may include but are not limited to electricity, oil and other liquid fuels, and household travel, with examples from the United States and other countries.

0101	Joshua Linn	Seats (Total: 25)
	TuTh 2:15pm - 3:30pm	SYM 0209

AREC799 **Master's Thesis Research**

(Perm req)

Credits: 1-6 Grading Method: Sat-Fail

Contact department for information to register for this course.

AREC815 **Experimental and Behavioral Economics**

Credits: 3 Grading Method: Regular, Sat-Fail

Prerequisite: AREC623, AREC624, ECON603, and ECON604; or equivalent. Credit only granted for: AREC815 or AREC869A. Formerly: AREC869A.

An overview of the design, implementation, and analysis of experiments motivated by behavioral economics, with a particular focus on experiments in field settings. Topics covered include social preferences, risk aversion, prospect theory, present bias, overconfidence, and limited attention.

0101	Neslihan Uler	Seats (Total: 25)
	MW 2:00pm - 3:15pm	SYM 0209

AREC845 **Environment and Development Economics**

Credits: 3 Grading Method: Regular, Audit, Sat-Fail

Cross-listed with: AREC645. Jointly offered with: AREC845. Credit only granted for: AREC645 or AREC8 45.

Considers neoclassical and endogenous growth models; international trade theory; the role of property right institutions and factor markets; the environmental impact of trade liberalization in developing countries and the environmental effects of increasing international capital mobility; empirical studies relating the environment to growth and globalization; and policy analyses.

0101	Jing Cai	Seats (Total: 25)
	TuTh 9:30am - 10:45am	SYM 0209

AREC898 **Pre-Candidacy Research**

(Perm req)

Credits: 1-8 Grading Method: Sat-Fail

Contact department for information to register for this course.

AREC899 **Doctoral Dissertation Research**

(Perm req)

Credits: 6 Grading Method: Sat-Fail

Contact department for information to register for this course.

ARHU Arts and Humanities Spring 2020

ARHU158P **Explorations in Arts and Humanities; Words Matter - A Consideration of the Power of Language**

Credits: 3 Grading Method: Regular, Pass-Fail General Education: DSSP

A first-year innovation and research experience. It introduces multiple disciplinary perspectives within a given theme to understand human beings, cultures and societies. Students will learn about key questions, concepts, methods, and practices within ARHU and will engage in original humanistic research while working with campus and college tools and resources.

Restricted to first semester first year students in the College of Arts and Humanities. Beginning with the origins of the spoken and written word, this class will focus on the impact of words on relationships and cultural understanding. Exploring words from a variety of perspectives (sociolinguistic, interpersonal and intrapersonal) and as part of a dialogue on the intersectionality of race, class and gender, this course will consider the dynamic between words and their impact as we encounter them.

0101	Paula Nadler MW 12:00pm - 1:15pm	Seats (Total: 25) KEY 1117

ARHU269V **Special Topics in Study Abroad II; Vienna and Budapest Field Study**

Credits: 1 Grading Method: Regular, Pass-Fail, Audit

Special topics course taken as part of an approved study abroad program.

Contact department for information to register for this course.

ARHU275 **Writing to be Seen: Scriptwriting for Theatre, Film, and Television**

Credits: 3 Grading Method: Regular, Pass-Fail General Education: DSHU, DSSP

Cross-listed with: ENGL275. Credit only granted for: ENGL275 or ARHU275.

Introduction to the theory and practice of scriptwriting with an opportunity to read, view, evaluate, write, and revise texts meant to be performed. Students will practice writing for the stage, film, and television and also examine selected scripts, performances, and film and television clips as models for their own creative work. Students will complete frequent writing exercises, participate in workshops, and learn to apply scholarship to the analysis and critique of scripts.

0101	Paul Cote MWF 10:00am - 10:50am	Seats (Total: 15) KEY 0120
0102	Paul Cote MWF 10:00am - 10:50am *This section is restricted to students in the Jimenez-Porter Writers' House.*	Seats (Total: 5) KEY 0120

ARHU286 **Experiential Learning**

(Perm req)

Credits: 3-6 Grading Method: Regular, Pass-Fail

Prerequisite: Permission of ARHU-College of Arts & Humanities. Restriction: Minimum cumulative GPA of 2.5; and must be in a major or minor in ARHU - College of Arts and Humanities; and must have earned a minimum of 12 credits; and must not have earned more than 60 credits.

Designed for students who have completed fewer than 60 credits, students who are in their first semester at the University of Maryland, and/or students who wish to complete legislative internships, research-based internships, some start-up internships and some remote internships. All students must be enrolled in an ARHU major or minor and the internship must be in one of the academic fields covered within the College of Arts and Humanities. In addition to completing their required hours on site, students with fewer than 60 credits and students who are in their first semester at the University of Maryland will be required to attend three bi-weekly seminars at the beginning of the semester to help develop their para-professional goals and understandings.

0101	Paula Nadler	Seats (Total: 10)
	Contact instructor or department for details.	

ARHU318A **Writers' House Colloquium: Creative Writing Across Languages and Cultures; Poetry Colloquium**

(Perm req)

Credits: 1 Grading Method: Regular, Pass-Fail

Colloquium designed to improve students' skills in literary and communication arts through lectures and discussions on the history and craft of writing across cultures. Topics for the different versions of ARHU 318 include poetry, fiction, writing for different media, autobiography and memoir, scriptwriting, screenwriting, and community engagement projects.

0101	Lindsay Bernal	Seats (Total: 15)
	W 7:00pm - 8:15pm	QAN 1132

ARHU318B **Writers' House Colloquium: Creative Writing Across Languages and Cultures; Prose Colloquium**

(Perm req)

Credits: 1 Grading Method: Regular, Pass-Fail

Colloquium designed to improve students' skills in literary and communication arts through lectures and discussions on the history and craft of writing across cultures. Topics for the different versions of ARHU 318 include poetry, fiction, writing for different media, autobiography and memoir, scriptwriting, screenwriting, and community engagement projects.

Restricted to Jimenez-Porter Writers' House Students

0101	Vivianne Salgado	Seats (Total: 15)
	W 5:30pm - 6:45pm	QAN 1132

ARHU318W **Writers' House Colloquium: Creative Writing Across Languages and Cultures; Screenwriting/Scriptwriting**

(Perm req)

Credits: 1

Grading Method: Regular, Pass-Fail

Colloquium designed to improve students' skills in literary and communication arts through lectures and discussions on the history and craft of writing across cultures. Topics for the different versions of ARHU 318 include poetry, fiction, writing for different media, autobiography and memoir, scriptwriting, screenwriting, and community engagement projects.

Restricted to Jimenez-Porter Writers' House students.

0101	Jacqueline Mueck W 4:00pm - 5:15pm	Seats (Total: 15) QAN 1132

ARHU319C **Writers' House Second Year Colloquium: Form and Theory of Creative Writing; Spoken Word**

(Perm req)

Credits: 3

Grading Method: Regular, Pass-Fail

General Education: DSHU, DSSP

Required course for Writers' House students pursuing the notation program. Offered in either poetry or imaginative prose writing. Students work at the intermediate level, refining creative writing skills through cross-cultural reading and writing exercises. As part of the course, students attend a series of lectures and readings given by professional writers.

For further details, please contact Johnna Schmidt jmschmid@umd.edu.

0101	Naliyah Kaya W 3:30pm - 6:00pm	Seats (Total: 15) SSU 1121

ARHU320 **Writers' House Second Year Colloquium: Writing for Publication**

(Perm req)

Credits: 3

Grading Method: Regular, Pass-Fail

General Education: DSSP

Recommended: Completion of ARHU318 and ARHU319 recommended. Restriction: Currently enrolled in Writers' House or permission of program. Credit only granted for: ARHU319A or ARHU320. Formerly: ARHU319A.

Students write, discuss and revise for multiple forms of publication: reading their own work at least once in public, sending work out for publication to literary journals, and producing a chapbook of high quality by end of semester.

0101	Johnna Schmidt F 2:00pm - 4:30pm	Seats (Total: 30) TWS 1320

ARHU338 **Undergraduate Teaching Assistantship in a Living Learning Program**

(Perm req)

Credits: 3 Grading Method: Regular, Pass-Fail

Offers exceptional students the opportunity to work closely with a faculty member and gain valuable experience. ARHU Living learning program UTAs also serve as peer mentors and program leaders. They assist with course planning, research, and student advising (as appropriate). We are also allowing for variable credit (1-3 cr hrs).

0101	Johnna Schmidt Contact instructor or department for details.	Seats (Total: 5)
0102	Jason Farman Contact instructor or department for details.	Seats (Total: 2)

ARHU340 **Financial Entrepreneurship for Arts Leaders**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit General Education: DSSP

Cross-listed with: MUSC448E. Credit only granted for: ARHU340 or MUSC448E.

An introduction to financial entrepreneurship for the arts leader in order to prepare students for diverse and ever-changing careers in the arts and creative fields. Topics explored will include Professional Paperwork (resumes, cover letters, biographies, job searches), Financial Literacy (taxes, budgets, boards, tickets sales, musicians unions), Marketing (website development, social media, press packets, record labels vs. online distribution, headshots, audience development, community engagement, branded content), Communication (public speaking, writing), and Technology (online tools, computer software, peripherals, recording, photography/videography, on campus resources).

0101	Lee Hinkle TuTh 9:30am - 10:45am	Seats (Total: 24) PAC 2200

ARHU380 **Arts & Humanities Special Topics: Social Innovation, Change, and Justice: Do Good Now**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit General Education: DSSP

Credit only granted for: ARHU380, BSOS388B, or PLCY388D.

The course serves as the core course for the Arts-and-Humanities track in PLCY's minor in "Nonprofit Leadership and Social Innovation." Students will be introduced to the role that the Arts and Humanities can play in social innovation and social change, while exploring various mechanisms for achieving impact with a focus on advancing social justice, equity and systems change. This course deepens understandings of nonprofit leadership, entrepreneurship and social innovation by guiding students through the creation and implementation of social change projects and ventures of their choice.

For Spring 2020: Credit only granted for AMST328Q, ARHU380, BSOS388B, or PLCY388D.

0101	T'Sey-Haye Preaster W 3:00pm - 5:30pm	Seats (Total: 15) TWS 0328

ARHU386 **Experiential Learning**

(Perm req)

Credits: 3-6 Grading Method: Regular, Pass-Fail General Education: DSSP

Prerequisite: Permission of ARHU-College of Arts & Humanities. Restriction: Junior standing or higher.

0201	Paula Nadler Contact instructor or department for details.	Seats (Total: 25)
0301	Susan Miller Contact instructor or department for details. *This section is restricted to students enrolled in the Arts Leadership Minor.*	Seats (Total: 3)

ARHU398Q **Special Topics in Arts and Humanities; Cross-Cultural Perspectives on Quality**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

An in-depth exploration of thematic topics in Arts and Humanities.

In this QUEST course, we build on the foundation concepts of quality and substantially broaden our field of view. Specifically, we consider the subjective, customer-created definition of quality and the social and cultural forces that shape customer perspectives. We explore the differences in quality perceptions between US and non-US consumers, the sources of these differences, and the challenges they present in measuring expectations, performance, and customer satisfaction in a multinational business environment.

0101	David Ashley Th 5:00pm - 7:40pm *Restricted to students in the QUEST program in BMGT*	Seats (Total: 20) VMH 1415
0102	David Ashley Th 5:00pm - 7:40pm *Open to all students*	Seats (Total: 25) VMH 1415

ARHU468 **Peer Mentoring Program**

(Perm req)

Credits: 1

Grading Method: Regular, Pass-Fail

A workshop for sophomore, junior or senior students who wish to serve as peer mentors helping first-year students to cope with the numerous issues which often arise in the transition to the university.

Restricted to ARHU upperclassmen who will serve as peer mentors to help transition new students to the university. Interested students must apply to become a peer mentor.

0101	Amanda Bachert	Seats (Total: 35)
	M 4:00pm - 5:30pm	KEY 0103

ARHU486 **Internship Practicum in Arts and Humanities**

(Perm req)

Credits: 3-6

Grading Method: Regular, Pass-Fail

Prerequisite: Have completed previous internship at U of MD. Restriction: Must be in a major in ARHU-College of Arts & Humanities; and permission of ARHU-College of Arts & Humanities; and minimum cumulative GPA of 2.5; and must have earned a minimum of 60 credits; and completed 12 credits at U of MD.

An internship intended for students who have already completed an internship for credit. ARHU486 must be a different experience from the internship students have already taken for credit. Generally students intern with a different company, but they may continue working for the same company if the job is significantly different. See ARHU internship coordinator for details.

0101	Paula Nadler	Seats (Total: 20)
	Contact instructor or department for details.	

ARHU489 **Advanced Internship Practicum in ARHU**

(Perm req)

Credits: 3-6

Grading Method: Regular, Pass-Fail

Designed for students who have already completed at least 2 upper level internship courses for academic credit. It is an advanced practicum to assist students in continuing to develop and hone their professional writing, presentation and analytical skills.

0101	Paula Nadler	Seats (Total: 2)
	Contact instructor or department for details.	

ARMY Army Spring 2020

ARMY105 **Basic Military Science II**

Credits: 3

Grading Method: Regular, Pass-Fail

Credit only granted for: ARMY119 or ARMY105.

Exploration of the Army Leadership Model through classroom instruction, leadership training and mentorship. Develops knowledge and competency in physical fitness through rigorous training and experiential leadership education through leadership laboratories.

0101	John Andrews TuTh 9:30am - 10:45am	Seats (Total: 40) EGR 3106	
0102	John Andrews MWF 9:00am - 9:50am	Seats (Total: 40) PLS 1119	

ARMY202 Military Leadership in Practice

Credits: 3

Grading Method: Regular, Pass-Fail, Audit

This course uses the case study method to examine the Army Leadership Model as applied to assigned missions in U.S. history. Students learn to evaluate and assimilate effective leadership methods and techniques. Includes a laboratory period in which case studies are worked out and presented by individuals and groups.

0102	James Choi TuTh 2:00pm - 3:15pm	Seats (Total: 40) BPS 1238	

ARMY302 Advanced Military Leadership II

Credits: 3

Grading Method: Regular, Pass-Fail, Audit

Prepares contracted students for certification at the Army National Advance Camp, a prerequisite for commissioning as an officer in the U.S. Army. Focus is directed to military tactics, squad and platoon drills, marksmanship, land navigation and fitness excellence. Includes a laboratory period in applied leadership skills as well as a three day field exercise.

0101	Ashley Miller TuTh 11:00am - 12:15pm Th 4:00pm - 6:00pm MWF 6:30am - 7:30am	Seats (Total: 40) PHY 1201 ARM 0131 ARM 0131	 Lab Lab

ARMY402 Advanced Military Leadership IV

Credits: 3

Grading Method: Regular, Pass-Fail, Audit

The military system and code of ethics in the military environment is studied. Topics include code of conduct during all forms of military operations, the Geneva Conventions and the ethical decision making process. Also includes a laboratory in applied leadership skills, fitness excellence and two field exercises.

0101	Marisa Pace	Seats (Total: 30)	
	MW 12:30pm - 1:45pm	ESJ 2212	
	Th 4:00pm - 6:00pm	ARM 0131	Lab
	MWF 6:30am - 7:30am	ARM 0131	Lab

ARSC Air Science Spring 2020

ARSC059 Air Force Officer Lab

Credits: 1

Grading Method: Sat-Fail

Offers Air Force ROTC cadet officer's practical experience in military leadership, management, organization, and customs. May include visits to military installations, weekend laboratories, and flight orientation.

Restriction: Must be an AFROTC cadet. Repeatable to 10 credits if content differs. Additional information: This course does not carry any credit toward any degree at the University.

0101	Zachary Crampton	Seats (Total: 250)
	Th 7:00am - 8:50am	ARM 0126
	Course meets in front of COL. Contact instructor for details.	

ARSC101 The USAF Today II

Credits: 1

Grading Method: Regular, Pass-Fail

Corequisite: AFROTC cadets must also register for ARSC059.

Freshman course for AFROTC. Continuation of ARSC100 for freshmen AFROTC cadets. Study of topics relating to the Air Forces and defense. Focuses on organizational structure and missions of the Air Force; officership and an introduction to both written and oral communication skills.

0101	Steven Freund	Seats (Total: 22)
	Tu 9:00am - 9:50am	HBK 0109
0102	Steven Freund	Seats (Total: 50)
	Th 9:00am - 9:50am	CHM 1402

0103	Steven Freund Th 1:00pm - 1:50pm	Seats (Total: 35) HBK 0115

ARSC201 **The Development of Air Power II**

Credits: 1 Grading Method: Regular, Pass-Fail

Corequisite: AFROTC cadets must also register for ARSC059.

Continuation of ARSC 200 for sophomore AFROTC cadets. The study of historical events, leaders, and technical developments which surrounded the growth of air power; the basics of leadership; environment of an Air Force officer; and concepts of ethical behavior.

0101	Zachary Crampton Th 10:00am - 10:50am	Seats (Total: 49) PHY 4221
0102	Zachary Crampton Th 2:00pm - 2:50pm	Seats (Total: 35) Location: TBA
0103	Zachary Crampton Tu 10:00am - 10:50am	Seats (Total: 25) ARM 0118

ARSC301 **Management and Leadership II**

(Perm req)

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Corequisite: AFROTC cadets must also register for ARSC059; or permission of UGST-AFROTC-Air Science. Restriction: Junior standing or higher.

Continuation of ARSC300. Study of leadership and management skills and leadership ethics as well as written and oral communication skills required of Air Force officers. This course will satisfy credit towards a minor in military studies.

0101	Joshua Rager Th 9:00am - 12:00pm	Seats (Total: 50) BPS 1236
0102	Joshua Rager TuTh 12:30pm - 2:00pm	Seats (Total: 18) ARM 0118

ARSC401 **National Security Forces in Contemporary American Society II**

(Perm req)

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Prerequisite: ARSC300 or ARSC301; or permission of UGST-AFROTC-Air Science. Corequisite: ARSC059; or permission of UGST-AFROTC-Air Science. Restriction: Senior standing.

This course examines various subjects including: military law/justice, preparation for active duty, and current issues affecting military professionalism. This course will satisfy credit towards a minor in military studies.

0101	Isham Nichols Th 9:00am - 12:00pm	Seats (Total: 25) ARM 0118
0102	Isham Nichols TuTh 2:00pm - 3:30pm	Seats (Total: 18) ARM 0118
0103	Isham Nichols MW 2:00pm - 3:30pm	Seats (Total: 15) ARM 0118

ARTH Art History & Archaeology Spring 2020

ARTH169A **Special Topics in Study Abroad I**

Credits: 1-6 Grading Method: Regular, Pass-Fail, Audit

Special topics course taken as part of an approved study abroad program.

Contact department for information to register for this course.

ARTH169B **Special Topics in Study Abroad I; Arts of Modernity**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Special topics course taken as part of an approved study abroad program.

Contact department for information to register for this course.

ARTH169I **Special Topics in Study Abroad I; Art of Rome**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Special topics course taken as part of an approved study abroad program.

Contact department for information to register for this course.

ARTH200 **Art and Society in Ancient and Medieval Europe and the Mediterranean**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit CORE: HA General Education: DSHU, DVUP

Examines the material culture and visual expressions of Mediterranean and European societies from early times until ca. 1300 CE, emphasizing the political, social, and religious context of the works studied, the relationships of the works to the societies that created them, and the interrelationship of these societies.

0101	Maryl Gensheimer TuTh 11:00am - 11:50am M 9:00am - 9:50am	Seats (Total: 25) ASY 2203 ASY 3215	Discussion
0102	Maryl Gensheimer TuTh 11:00am - 11:50am W 10:00am - 10:50am	Seats (Total: 25) ASY 2203 ASY 3215	Discussion
0103	Maryl Gensheimer TuTh 11:00am - 11:50am F 11:00am - 11:50am	Seats (Total: 25) ASY 2203 ASY 3215	Discussion
0104	Maryl Gensheimer TuTh 11:00am - 11:50am F 9:00am - 9:50am	Seats (Total: 25) ASY 2203 ASY 3215	Discussion
0105	Maryl Gensheimer TuTh 11:00am - 11:50am W 1:00pm - 1:50pm	Seats (Total: 25) ASY 2203 ASY 3215	Discussion
0106	Maryl Gensheimer TuTh 11:00am - 11:50am W 12:00pm - 12:50pm	Seats (Total: 25) ASY 2203 ASY 3215	Discussion

ARTH201 **Art and Society in the West from the Renaissance to the Present**

Credits: 3	Grading Method: Regular, Pass-Fail, Audit	CORE: HA	General Education: DSHU, DVUP

Examines representative European and American works of art from the later Middle Ages to the present, highlighting the dynamic exchange between artistic and cultural traditions both within periods and across time.

0101	Steven Mansbach MW 9:00am - 9:50am M 10:00am - 10:50am	Seats (Total: 25) ASY 2203 ASY 3207	Discussion

0103	Steven Mansbach MW 9:00am - 9:50am W 10:00am - 10:50am	Seats (Total: 25) ASY 2203 ASY 3211	Discussion
0104	Steven Mansbach MW 9:00am - 9:50am W 11:00am - 11:50am	Seats (Total: 25) ASY 2203 TWS 1106	Discussion
0105	Steven Mansbach MW 9:00am - 9:50am F 10:00am - 10:50am	Seats (Total: 25) ASY 2203 ASY 3211	Discussion

ARTH230 **Symbolic Images: The Theory and Practice of Iconography in European Art, 1400-1850**

Credits: 3 | Grading Method: Regular, Pass-Fail, Audit | General Education: DSSP

Iconographic interpretation of visual narratives, signs and symbols has long been a topic of art-historical inquiry. In early modern European art, images were often conceived with the deliberate intent of posing a 'puzzle' or 'problem' for the beholder to solve; yet in most cases we have little or no evidence of how contemporary beholders solved such enigmas. Provides students with the opportunity to take command of these research methods and source materials, addressing a genuine iconographic problem, researching the relevant literature, identifying the essential primary source evidence, making contextually appropriate assumptions, and producing a valid result.

0101	Anthony Colantuono TuTh 11:00am - 12:15pm	Seats (Total: 25) ASY 3219	

ARTH255 **Art and Society in the Modern American World**

Credits: 3 | Grading Method: Regular, Pass-Fail, Audit | CORE: HA, D | General Education: DSHU, DVUP

Explores the origins and evolution of art in the modern American world, from the late colonial era to the present, comparing major artistic movements and their historical contexts. Considers the diversity of art across Latin America and the United States, and the ways in which artworks mediate social, ethnic, political, and national identities.

0101	Tess Korobkin MW 10:00am - 10:50am M 9:00am - 9:50am	Seats (Total: 25) ASY 2203 ASY 3211	Discussion

0102	Tess Korobkin MW 10:00am - 10:50am M 11:00am - 11:50am	Seats (Total: 25) ASY 2203 ASY 3219	Discussion
0103	Tess Korobkin MW 10:00am - 10:50am W 11:00am - 11:50am	Seats (Total: 25) ASY 2203 ASY 3211	Discussion
0104	Tess Korobkin MW 10:00am - 10:50am F 10:00am - 10:50am	Seats (Total: 25) ASY 2203 ASY 3219	Discussion

ARTH269A **Special Topics in Study Abroad II; Archaeology and Art of Ancient Italy**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Special topics course taken as part of an approved study abroad program.

Contact department for information to register for this course.

ARTH269D **Special Topics in Study Abroad II; History of Italian Design**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Special topics course taken as part of an approved study abroad program.

Contact department for information to register for this course.

ARTH269P **Special Topics in Study Abroad II; From Medieval to Contemporary: Exploring the Great Art and Architecture of Prague**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Special topics course taken as part of an approved study abroad program.

Contact department for information to register for this course.

ARTH269R **Special Topics in Study Abroad II; Art of Renaissance**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Special topics course taken as part of an approved study abroad program.

Contact department for information to register for this course.

ARTH300 **Egyptian Art and Archaeology**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Sites and monuments of painting, sculpture, architecture, and the minor arts of ancient Egypt from earliest times through the Roman conquest. Emphasis on the pharaonic period.

Contact department for information to register for this course.

ARTH305 **Archaeological Methods and Practice**

Credits: 3 Grading Method: Regular, Pass-Fail General Education: DSHS

Prerequisite: ANTH240, ARTH200, or CLAS180. Cross-listed with: ANTH305, CLAS305, JWST319Y. Credit only granted for: ANTH305, ARTH305, CLAS305, or JWST319Y.

A team-taught, interdisciplinary course discussing theories, methods, and ethical issues in the practice of archaeology.

0101	Christian Cloke	Seats (Total: 25)
	MW 10:00am - 11:15am	ASY 4213

ARTH330 **Seventeenth-Century European Art**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Painting, sculpture and architecture concentrating on Italy, Spain, France, and England.

0101	Elizabeth Honig	Seats (Total: 20)
	TuTh 3:30pm - 4:45pm	ASY 3215

ARTH350 **Twentieth-Century Art to 1945**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Prerequisite: ARTH201.

Painting, sculpture, and architecture in Europe and America from the late nineteenth century to the end of World War II.

0101	Steven Mansbach	Seats (Total: 25)
	M 1:00pm - 3:30pm	ASY 3215

ARTH359V **Film as Art; Seeing Through Film: How Film Means**

Credits: 3

Grading Method: Regular, Pass-Fail, Audit

The study of film as a visual art, from theoretical, cultural and aesthetic perspectives. Content varies by semester.

This course explores how Hollywood entertainment films have meanings beyond their plots. Students will learn how to analyze the totality of a film and its context, how a film tells its story, as they explore the way directors use film form and film conventions to create films with multiple meanings, films that undermine their overt stories, films that critique film genres and star personae, films created out of other films , films that explicate philosophical ideas, and films that change meanings depending upon the culture and expectations of the audience.

0101	Greg Metcalf	Seats (Total: 25)
	W 3:30pm - 7:00pm	ASY 4213

ARTH369C **Special Topics in Study Abroad III; The Art of Florence: Exploring Visual Culture**

Credits: 1-6

Grading Method: Regular, Pass-Fail, Audit

Special topics course taken as part of an approved study abroad program.

Contact department for information to register for this course.

ARTH369G **Special Topics in Study Abroad III**

Credits: 1-6

Grading Method: Regular, Pass-Fail, Audit

Special topics course taken as part of an approved study abroad program.

Contact department for information to register for this course.

ARTH369Q **Special Topics in Study Abroad III; Patrons and Artists in Baroque Italy**

Credits: 3

Grading Method: Regular, Pass-Fail, Audit

Special topics course taken as part of an approved study abroad program.

Contact department for information to register for this course.

ARTH386 **Experiential Learning**

Credits: 3-6

Grading Method: Regular, Pass-Fail

General Education: DSSP

Prerequisite: Permission of ARHU-Art History & Archaeology department. Restriction: Junior standing or higher.

Supervised internship experience in diverse areas of art historical, archaeological, and museological work.

Contact department for information to register for this course.

ARTH389A **Special Topics in Art History and Archaeology; The Art of Drawing: A Left and Right Brain Experience**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

0101	Beryl Bland W 10:00am - 12:30pm	Seats (Total: 10) ASY 3219

ARTH389B **Special Topics in Art History and Archaeology; The Art of Color: A Left and Right Brain Experience**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

0101	Beryl Bland F 10:00am - 12:30pm	Seats (Total: 10) ASY 2318

ARTH389D **Special Topics in Art History and Archaeology; Humanists on the Move**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Humanism was the intellectual movement that defined Europe s Renaissance. Originating in Italy, Humanism rapidly became a revolutionary way of thinking that crossed national boundaries, joining people in a common way of valuing humanity. Great figures as diverse as Leonardo da Vinci, Henry VIII, Isabella d Este, Martin Luther, Albrecht Durer and Copernicus were all humanists. This course uses digital methods to explore humanists as individuals who traveled, studied, argued, wrote, built andpainted within the humanist movement. Each student will take on a singlefigure, and will gather data on their movements and on their connectionsto other humanists. You will learn howto refine and visualize your data using digital tools like Palladio, OpenRefine, Gephi, and Cytoscape. We will also read and discuss originaltexts and visual artworks by many ofthese humanists.

0101	Elizabeth Honig TuTh 11:00am - 12:15pm	Seats (Total: 20) ASY 3215

ARTH389F **Special Topics in Art History and Archaeology; Classical Mythology in Renaissance Art (1400-1700)**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

One of the most significant facets of the rebirth of antiquity during the early modern era was the renewed interest in the meaning of classical myths among philosophers, theologians, men of letters, and visual artists. The most influential classical authority throughout this period was the Roman poet Ovid (Publius Ovidius Naso) whose fifteen-book poem The Metamorphoses served as a veritable Pagan Bible for painters and poets alike. This course explores the ways in which thestories contained in this perpetual poem were represented in the European visualarts betwe en 1400 and 1700.

0101	Aneta Georgievska-Shine	Seats (Total: 25)
	M 2:00pm - 4:30pm	ASY 3211

ARTH389J **Special Topics in Art History and Archaeology; Aztec to Inca: Art and Archaeology from the Ancient Americas**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

This lecture course is a selective, historical survey of ancient art and architecture in in Mesoamerica and Andean America. The course examines the artistic advances in Mexico and Peru up to the Conquest of Mexico and Peru. The focus will include works created by the Olmec, Zapotec, Maya and Aztec people in Mesoamerica and the Chavin, Paracas, Moche and Inca cultures in Andean America.

0101	Beryl Bland	Seats (Total: 25)
	W 2:00pm - 4:30pm	ASY 3215

ARTH488B **Colloquium in Art History; Representing the Other**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Colloquium to investigate a specific topic in depth.

This course offers a comparative and thematic approach to studying the representation of otherness in art and visual culture from the eighteenth century to the present. First, it works to expand the definition of otherness, which has come to mean non-white difference, to include ideasof sexuality, gender, and ability. Students will then consider the rolesthat ethnicity, nationality, and politics play in representations of otherness across various continents and chronologies.

0101	Jordana Saggese	Seats (Total: 12)
	TuTh 2:00pm - 3:15pm	ASY 3217

ARTH488X **Colloquium in Art History; Contemporary Transnational Chinese Cinemas and Art**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Colloquium to investigate a specific topic in depth.

Also offered as FILM429L. Through critical screenings, viewings, readings, and discussions, we will examine cinemas and art by directors and artists in Greater China (PRC, Taiwan, Hong Kong), "cultural China," and the Chinese diaspora. Students will consider representative works by directors such as Ang Lee , Ann Hui, Chen Kaige, Feng Xiaogang, Hou Hsiao-hsien, Wong Kar-wai, and Zhang Yimou, and artists such as Ai Weiwei, Cao Fei, Gao Xingjian, Gu Wenda, and Xu Bing, as a way to cross-examine the concepts of the contemporary and the transnational.

0101	Jason Kuo	Seats (Total: 12)
	Tu 2:00pm - 4:30pm	ASY 4213A

ARTH489K **Special Topics in Art History; Art and the Museum World**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Learn about ways in which you can use your fine arts and art history background in a variety of contexts - from museums and galleries to governmental and non-governmental art organizations. Our weekly meetings will address various professional paths including curatorial work, collection management and preservation, installation, and outreach programs that promote a more meaningful relationship between museums and their audiences.

0101	Aneta Georgievska-Shine	Seats (Total: 15)
	F 2:00pm - 4:30pm	ASY 3217

ARTH489N **Special Topics in Art History; Can Art Museums be Decolonized? A History of Modern Art Display in America**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Students will study how collectors, curators, patrons, artists and architects collaborated to display modern art from the late 19th century to the present, particularly in the United States. The course focuses on specific exhibitions and museums (for example the Phillips Collection, MoMA, Barnes Foundation, and Maryland Historical Society) to explore historical contexts for and theories of the display of art. Local museums will serve as an extension of our classroom as we analyze current exhibitions at the Renwick Gallery and the Phillips Collection to understand how museums function as spaces of knowledge building, identity formation, and politics. At the end of the course, we will study how artists have engaged with these spaces with site-specific art works and practices of institutional critique. As a final project, students will propose a new installation of a museum's permanent collection that reimagines what its works of art can do and what they can mean.

0101	Alison Boyd	Seats (Total: 15)
	W 2:00pm - 4:30pm	ASY 3217

ARTH489Z **Special Topics in Art History; Art in London**

Credits: 3

Grading Method: Regular, Pass-Fail, Audit

Contact department for information to register for this course.

ARTH498 **Directed Studies in Art History I**

(Perm req)

Credits: 2-3

Grading Method: Regular, Pass-Fail, Audit

Contact department for information to register for this course.

ARTH499 **Honors Thesis**

(Perm req)

Credits: 3-6

Grading Method: Regular, Pass-Fail, Audit

Contact department for information to register for this course.

ARTH708D **Seminar in Ancient Art and Archaeology; The Ancient Portrait**

Credits: 3

Grading Method: Regular, Audit, Sat-Fail

This seminar will engage issues of connoisseurship, iconography, iconology, and semantics in order to analyze and understand Egyptian, Greek, and Roman portraits in their ancient contexts. This course emphasizes the historical, religious, political, social, and cultural contexts of the works studied; the relationship of the works of art to the society that created them; and the interrelationships of these societies as seen through their material and visual culture.

0101	Maryl Gensheimer	Seats (Total: 5)
	Th 12:30pm - 3:00pm	ASY 4304

ARTH758L **Seminar in American Art; Art and Visual Culture in the 1930's**

Credits: 3

Grading Method: Regular, Audit, Sat-Fail

How did artists respond to the economic, political, and social turmoil that defined the Great Depression era in the United States? How can art historians plumb the historically-specific meanings, possibilities and limits of media and materials in analyzing works of art and visual culture? Guided by these two questions, this seminar will explore artistic production in 1930s America. In addition to close analysis of traditional media such as painting and sculpture, we will consider the role of intermediality in thirties constructions like the photobook as well as unconventional materials soil, radio, pedagogy in defining the arts of the era. Throughout, we will question the explicit and implicit politics of works of art and elucidate the formations of race, class, gender, and sexuality that underpin them.

0101	Tess Korobkin	Seats (Total: 5)
	W 3:00pm - 5:30pm	ASY 4304

ARTH768A **Seminar in Latin American Art and Archaeology; Critical Historiographies of Latin American Modernism**

Credits: 3 Grading Method: Regular, Audit, Sat-Fail

This seminar devotes itself to an historiographical study and appraisal of postwar Latin American art history, beginning at mid-century and continuing through the revisionist critiques of the present day.

0101	Abigail McEwen	Seats (Total: 5)
	M 12:30pm - 3:00pm	ASY 4304

ARTH779D **Seminar in Japanese Art; The Japanese Diaspora in America: Art, Race, Incarceration**

Credits: 3 Grading Method: Regular, Audit, Sat-Fail

Artists from Japan practiced in the United States in the early twentieth -century despite racially based restrictions on immigration and exclusion from citizenship. Even under harsh conditions of racial discrimination, a surprising number of these artists attained professional success, at least before the Second World War and the Japanese-American Incarceration all but extinguished their practice. Today these Japanese artists are marginal figures or are largely forgotten, their artworks having fallen through the cracks of art historical study. Art History s long-entrenched approach to disciplinary categorization, which distinguishes "Asian art" and "Japanese art" from both "modern art" and "American art," works to perpetuate a racial bias against Asian artists who were active in the United States in the twentieth century, both before and after the war. In order to address this disciplinary problem, and on the occasion of the major exhibition "Obata Chiura, An American Modern" at the Smithsonian American Art Museum, this seminar aims to bring perspectives from multiple subfields to bear on the global nature of Japanese artists' practice in the American diaspora. We will assess the challenges and potential of such material to the discipline, and chart new strategies and methodsfor cholarship.

0101	Alicia Volk	Seats (Total: 5)
	Tu 12:00pm - 2:30pm	ASY 4304

ARTH798 **Directed Graduate Studies in Art History**

(Perm req)

Credits: 3 Grading Method: Regular, Audit, Sat-Fail

Contact department for information to register for this course.

ARTH799 **Master's Thesis Research**

(Perm req)

Credits: 1-6 Grading Method: Sat-Fail

Contact department for information to register for this course.

ARTH898 **Pre-Candidacy Research**

(Perm req)

Credits: 1-8 Grading Method: Regular, Sat-Fail

Contact department for information to register for this course.

ARTH899 **Doctoral Dissertation Research**

(Perm req)

Credits: 6 Grading Method: Sat-Fail

Contact department for information to register for this course.

ARTT Art Studio Spring 2020

ARTT100 **Two-Dimensional Design Fundamentals**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit General Education: DSSP

Principles and elements of two-dimensional design. Introduction to visual communication.

Students must pay a $40.00 studio lab fee.

0301	Wendy Jacobs MW 12:30pm - 3:00pm	Seats (Total: 18) ASY 2318	Lab
0401	Wendy Jacobs MW 12:30pm - 3:00pm	Seats (Total: 18) ASY 2318	Lab
0501	Wendy Jacobs MW 3:30pm - 6:00pm	Seats (Total: 18) ASY 2318	Lab
0601	Wendy Jacobs MW 3:30pm - 6:00pm	Seats (Total: 18) ASY 2318	Lab
0701	Peter Cullen TuTh 12:30pm - 3:00pm	Seats (Total: 18) ASY 2318	Lab
0801	Peter Cullen TuTh 12:30pm - 3:00pm	Seats (Total: 18) ASY 2318	Lab

ARTT110 **Elements of Drawing I**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit General Education: DSSP

Fundamental concepts, media, and processes of drawing. Emphasis on observation and representation in combination with individual expression. Subject matter includes still life, human figure, nature, the built environment, and conceptual projects.

Students must pay a $40.00 studio lab fee.

0101	Peter Cullen TuTh 9:00am - 11:30am	Seats (Total: 18) ASY 2317	Lab
0201	Peter Cullen TuTh 9:00am - 11:30am	Seats (Total: 18) ASY 2321	Lab
0301	Noah McWilliams MW 3:30pm - 6:00pm	Seats (Total: 18) ASY 2317	Lab
0401	Noah McWilliams MW 3:30pm - 6:00pm	Seats (Total: 18) ASY 2321	Lab
0501	Brandon Donahue TuTh 12:30pm - 3:00pm	Seats (Total: 18) ASY 2317	Lab
0601	Brandon Donahue TuTh 12:30pm - 3:00pm	Seats (Total: 18) ASY 2321	Lab
0701	Jowita Wyszomirska MW 12:30pm - 3:00pm	Seats (Total: 18) ASY 2317	Lab
0801	Jowita Wyszomirska MW 12:30pm - 3:00pm	Seats (Total: 18) ASY 2321	Lab
0901	Rachel Scully MW 9:00am - 11:30am	Seats (Total: 18) ASY 2317	Lab
1001	Rachel Scully MW 9:00am - 11:30am	Seats (Total: 18) ASY 2321	Lab

ARTT150 **Introduction to Art Theory**

Credits: 3 | Grading Method: Regular, Pass-Fail, Audit | CORE: HA | General Education: DSHU

Fundamental concepts of global, philosophic, and critical art theory examined through various historic and contemporary texts, and the analysis of works of art.

0101	Richard Klank MW 1:00pm - 1:50pm M 12:00pm - 12:50pm	Seats (Total: 25) ASY 2309 ASY 3215	Discussion
0102	Richard Klank MW 1:00pm - 1:50pm W 12:00pm - 12:50pm	Seats (Total: 25) ASY 2309 ASY 3203	Discussion
0103	Richard Klank MW 1:00pm - 1:50pm W 2:00pm - 2:50pm	Seats (Total: 25) ASY 2309 ASY 3211	Discussion
0201	Rex Weil TuTh 3:30pm - 4:20pm Th 2:00pm - 2:50pm	Seats (Total: 25) TWS 1100 ASY 3219	Discussion
0202	Rex Weil TuTh 3:30pm - 4:20pm Tu 12:30pm - 1:20pm	Seats (Total: 25) TWS 1100 ASY 3219	Discussion
0203	Rex Weil TuTh 3:30pm - 4:20pm Th 12:30pm - 1:20pm	Seats (Total: 25) TWS 1100 ASY 3219	Discussion

ARTT200 **Three-Dimensional Art Fundamentals**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Prerequisite: ARTT100 and ARTT110.

Fundamental concepts of three-dimensional form and space examined through the manipulation and organization of various materials.

Students must pay a $40.00 studio lab fee.

0101	Foon Sham TuTh 12:30pm - 3:00pm	Seats (Total: 18) ASY 1311	Lab
0201	Cy Keener MW 12:30pm - 3:00pm	Seats (Total: 18) ASY 1311	Lab

0301	Jeremy Kunkel TuTh 9:00am - 11:30am	Seats (Total: 18) ASY 1311	Lab

ARTT210 **Elements of Drawing II**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Prerequisite: ARTT110.

Continuation of ARTT110 with additional emphasis on color, figure drawing, and contemporary issues.

Students must pay a $40.00 studio lab fee.

0101	Ryan Syrell TuTh 9:00am - 11:30am	Seats (Total: 16) ASY 2315	Lab
0201	Emily Conover TuTh 3:30pm - 6:00pm	Seats (Total: 16) ASY 2315	Lab
0301	Rachel Scully MW 12:30pm - 3:00pm	Seats (Total: 16) ASY 2315	Lab

ARTT255 **Introduction to Digital Art and Design Processes**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Prerequisite: ARTT100 and ARTT110. Credit only granted for: ARTT255 or ARTT354. Formerly: ARTT354.

Introduction to basic software and principles of digital imaging, and how they are applied to art and design. Topics covered: Digital image construction and manipulation, Vector-Based digital techniques layout, typography, etc), time-based digital techniques (video and audio composition and manipulation), and basic interactivity (web-design). Digital media used to explore visual principles established in ARTT100.

Students must pay a $40.00 studio lab fee.

0101	Shannon Collis Class time/details on ELMs	Seats (Total: 18) ONLINE	Lab
0201	Narendra Ratnapala TuTh 12:30pm - 3:00pm	Seats (Total: 18) ATL 1410	Lab

0301	Narendra Ratnapala TuTh 3:30pm - 6:00pm	Seats (Total: 18) ATL 1410	Lab

ARTT260 **Dangerous Art: Censorship or Subsidy**

Credits: 3 | Grading Method: Regular, Pass-Fail | General Education: DSHS, SCIS

Combines a broad historical analysis of the relationship between art and authority with an examination of contemporary culture criticism and art practice. Explores the uses and abuses of art and culture in totalitarianand theocratic states as a prelude to a review of the role of official culture in the United States. Examines art and culture in the public arena and many related areas where the arts and policy interact.

0101	Rex Weil TuTh 6:00pm - 7:15pm	Seats (Total: 20) ASY 3221	

ARTT320 **Elements of Painting**

Credits: 3 | Grading Method: Regular, Pass-Fail, Audit

Prerequisite: ARTT200, ARTT210, and ARTT150; or permission of ARHU-Art department.

Concepts and fundamental processes of oil and/or acrylic painting.

Students must pay a $40.00 studio lab fee.

0101	Leslie Berns TuTh 9:00am - 11:30am	Seats (Total: 18) ASY 3318	Lab
0201	Emily Conover TuTh 12:30pm - 3:00pm *This section uses acrylic paint only.*	Seats (Total: 18) ASY 3316	Lab
0301	Richard Klank MW 9:00am - 11:30am	Seats (Total: 12) ASY 3322	Lab

ARTT330 **Elements of Sculpture: Metal Casting**

Credits: 3 | Grading Method: Regular, Pass-Fail

Prerequisite: ARTT200, ARTT210, and ARTT150; or permission of ARHU-Art department.

Sculptural concepts and fundamental processes related to metal casting.

Students must pay a $40.00 studio lab fee.

0101	John Ruppert	Seats (Total: 12)	
	MW 12:30pm - 3:00pm	ASY 1310	Lab

ARTT330H **Elements of Sculpture: Metal Casting**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Prerequisite: ARTT200, ARTT210, and ARTT150; or permission of ARHU-Art department.

Sculptural concepts and fundamental processes related to metal casting.

Restricted to Departmental Honors students only. Students must pay a $40.00 studio lab fee.

0101	John Ruppert	Seats (Total: 2)	
	MW 12:30pm - 3:00pm	ASY 1310	Lab

ARTT331 **Elements of Sculpture: Steel**

Credits: 3 Grading Method: Regular, Pass-Fail

Prerequisite: ARTT200, ARTT210, and ARTT150; or permission of ARHU-Art department.

Sculptural concepts and fundamental processes related to steel fabrication; torch cutting, welding, hot forging, and finishing.

Students must pay a $40.00 studio lab fee.

0101	John Ruppert	Seats (Total: 10)	
	MW 3:00pm - 5:30pm	ASY 1314	Lab

ARTT333 **Elements of Sculpture: Wood and Mixed Media**

Credits: 3 Grading Method: Regular, Pass-Fail

Prerequisite: ARTT200, ARTT210, and ARTT150; or permission of ARHU-Art department.

Sculptural concepts and fundamental processes using wood and mixed media.

Students must pay a $40.00 studio lab fee.

0101	Foon Sham	Seats (Total: 12)	
	TuTh 3:00pm - 5:30pm	ASY 1311	Lab

ARTT333H **Elements of Sculpture: Wood and Mixed Media**

(Perm req)

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Prerequisite: ARTT200, ARTT210, and ARTT150; or permission of ARHU-Art department.

Sculptural concepts and fundamental processes using wood and mixed media.

Restricted to departmental honors students only. Students must pay a $40.00 studio lab fee.

0101	Foon Sham	Seats (Total: 2)	
	TuTh 3:00pm - 5:30pm	ASY 1311	Lab

ARTT341 **Elements of Printmaking: Woodcut and Relief**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Prerequisite: ARTT200, ARTT210, and ARTT150; or permission of ARHU-Art department.

Concepts and fundamental processes related to woodcuts, linocuts, and other relief printing media.

Students must pay a $40.00 studio lab fee.

0101	Matthew McLaughlin	Seats (Total: 12)	
	MW 12:30pm - 3:00pm	ASY 1317	Lab

ARTT341H **Elements of Printmaking: Woodcut and Relief**

(Perm req)

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Prerequisite: ARTT200, ARTT210, and ARTT150; or permission of ARHU-Art department.

Concepts and fundamental processes related to woodcuts, linocuts, and other relief printing media.

Students must pay a $40.00 studio lab fee.

0101	Matthew McLaughlin	Seats (Total: 2)	
	MW 12:30pm - 3:00pm	ASY 1317	Lab

ARTT343 **Elements of Printmaking: Screen Printing**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Prerequisite: ARTT200, ARTT210, and ARTT150; or permission of ARHU-Art department.

Concepts and fundamental processes related to silkscreen printing.

Students must pay a $40.00 studio lab fee. Includes photographic processes.

0101	Jessica Gatlin	Seats (Total: 12)	
	TuTh 12:30pm - 3:00pm	ASY 1317	Lab

ARTT343H **Elements of Printmaking: Screen Printing**

(Perm req)

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Prerequisite: ARTT200, ARTT210, and ARTT150; or permission of ARHU-Art department.

Concepts and fundamental processes related to silkscreen printing.

Students must pay a $40.00 studio lab fee.

0101	Jessica Gatlin	Seats (Total: 2)	
	TuTh 12:30pm - 3:00pm	ASY 1317	Lab

ARTT353 **Elements of Photography**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Prerequisite: ARTT200, ARTT210, and ARTT150; or permission of ARHU-Art department.

Introduction to black-and-white photography. Basic technical and aesthetic vocabulary, camera mechanics and darkroom techniques. Introduction to the photographic message and meaning in both fine art and design concept.

Contact department for information to register for this course.

ARTT357 **Interactive Design**

(Perm req)

Credits: 3 Grading Method: Regular, Pass-Fail

Prerequisite: ARTT355 and ARTT356.

In-depth exploration of interactive design and website construction. Emphasis on concept-driven and community-based projects using variety of interactive software programs.

Students must pay a $40.00 studio lab fee.

0101	Rieko Chacey TuTh 2:00pm - 4:30pm	Seats (Total: 25) ASY 2322	Lab

ARTT361 **Design Literacy: Decoding Our Visual Culture**

(Perm req)

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Prerequisite: ARTT355 and ARTT356. Credit only granted for: ARTT361 or ARTT489L. Formerly: ARTT489L.

Holistic presentation of design history and theory from pre-history to present. Covers primarily visual communication design and includes the interrelationship of interior-, furniture-, industrial-, fashion-design, and architecture.

0101	Rex Weil TuTh 12:30pm - 1:45pm	Seats (Total: 25) ASY 2322

ARTT369T **Special Topics in Study Abroad III; Elements of Photography**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Special topics course taken as part of an approved study abroad program.

Contact department for information to register for this course.

ARTT370 **Elements of Digital Media**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Prerequisite: ARTT150, ARTT200, ARTT210, and ARTT255; or permission of ARHU-Art department.

Exploration of image creation and manipulation, interactivity, and linkages between digital audio and video. Emphasis on issues in contemporary digital art.

Students must pay a $40.00 studio lab fee.

0101	Brandon Morse TuTh 12:30pm - 3:00pm	Seats (Total: 14) ASY 3304
0201	Mollye Bendell MW 3:30pm - 6:00pm	Seats (Total: 14) ASY 3304

ARTT386 **Experiential Learning**

(Perm req)

Credits: 3-6

Grading Method: Regular, Pass-Fail

Prerequisite: Permission of ARHU-Art department. Restriction: Junior standing or higher.

Contact department for information to register for this course.

ARTT389 **Department of Art Undergraduate Teaching Assistantship**

(Perm req)

Credits: 3

Grading Method: Regular, Pass-Fail, Audit

Individual contractual agreement with faculty/mentor. Individualized assistantship in the teaching of a specified department course offering. Must have previously received an "A" grade for the class to be assisting.

Contact department for information to register for this course.

ARTT399 **Department of Art Research Assistantship**

(Perm req)

Credits: 1-3

Grading Method: Regular, Pass-Fail, Audit

Individual contractual agreement with faculty/mentor. Individualized experiential learning developed in relation to art-related research issues.

Contact department for information to register for this course.

ARTT418B **Advanced Drawing Studio; Advanced Drawing: Contemporary Approach**

Credits: 3

Grading Method: Regular, Pass-Fail, Audit

Multi-level drawing studio emphasizing advanced concepts and processes related to drawing; emphasis on contemporary art issues and individual directions.

Prerequisite: ARTT150, ARTT200 and ARTT210; plus one 300-level studio course; or permission of Department. Repeatable to 12 credits. Students must pay a $40.00 studio lab fee. Multi-level drawing studio emphasizing advanced concepts and processes related to drawing; emphasis on contemporary art issues and individual directions.

0101	Leah Laird MW 12:30pm - 3:00pm	Seats (Total: 16) ASY 2314	Lab
0201	Jowita Wyszomirska MW 3:30pm - 6:00pm	Seats (Total: 16) ASY 2314	Lab

0301	Matthew McLaughlin MW 9:00am - 11:30am	Seats (Total: 16) ASY 2314	Lab

ARTT418H **Advanced Drawing Studio; Honors Advanced Drawing**

(Perm req)

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Multi-level drawing studio emphasizing advanced concepts and processes related to drawing; emphasis on contemporary art issues and individual directions.

Restricted to departmental honors students only. Prerequisite: ARTT150, ARTT200, and ARTT210; plus one 300-level studio course; and permission of department. Students must pay a $40.00 studio lab fee.

0101	Leah Laird MW 12:30pm - 3:00pm	Seats (Total: 2) ASY 2314	Lab
0201	Jowita Wyszomirska MW 3:30pm - 6:00pm	Seats (Total: 2) ASY 2314	Lab
0301	Matthew McLaughlin MW 9:00am - 11:30am	Seats (Total: 2) ASY 2314	Lab

ARTT428 **Advanced Painting Studio; Advanced Painting**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Multi-level painting studio emphasizing advanced concepts and processes related to oil and acrylic painting; emphasis on contemporary art issues and individual directions in chosen media.

Prerequisite: ARTT320 or permission of department. Repeatable to 12 credits. Students must pay a $40.00 studio lab fee. Multi-level painting studio emphasizing advanced concepts and processes related to oil and acrylic painting; emphasis on contemporary art issues and individual directions.

0101	Patrick Craig TuTh 3:30pm - 6:00pm *This section uses acrylic paint only.*	Seats (Total: 18) ASY 3312	Lab
0201	Leah Laird MW 3:30pm - 6:00pm	Seats (Total: 18) ASY 3318	Lab

0301	Richard Klank MW 9:00am - 11:30am	Seats (Total: 8) ASY 3318	Lab

ARTT428H **Advanced Painting Studio; Honors Advanced Painting**

(Perm req)

Credits: 3

Grading Method: Regular, Pass-Fail, Audit

Multi-level painting studio emphasizing advanced concepts and processes related to oil and acrylic painting; emphasis on contemporary art issues and individual directions in chosen media.

Restricted to departmental honors students only. Prerequisite: ARTT320 and permission of department. Students must pay a $40.00 studio lab fee.

0101	Patrick Craig TuTh 3:00pm - 5:30pm *This section uses acrylic paint only.*	Seats (Total: 2) ASY 3312	Lab
0201	Leah Laird MW 3:30pm - 6:00pm	Seats (Total: 2) ASY 3316	Lab
0301	Richard Klank MW 9:00am - 11:30am	Seats (Total: 2) ASY 3318	Lab

ARTT428X **Advanced Painting Studio**

Credits: 3

Grading Method: Regular, Pass-Fail, Audit

Multi-level painting studio emphasizing advanced concepts and processes related to oil and acrylic painting; emphasis on contemporary art issues and individual directions in chosen media.

Contact department for information to register for this course.

ARTT438A **Advanced Sculpture Studio; Advanced Metal Casting**

Credits: 3

Grading Method: Regular, Pass-Fail, Audit

Multi-level sculpture studio; continuation of media-specific sculpture courses with emphasis on contemporary art issues and individual directions in chosen media.

Prerequisite: ARTT330 or permission of department. Students must pay a $40.00 studio lab fee.

0101	John Ruppert MW 12:30pm - 3:00pm	Seats (Total: 4) ASY 1310	Lab

ARTT438D **Advanced Sculpture Studio; Advanced Sculpture in Wood and Mixed Media**

(Perm req)

Credits: 3

Grading Method: Regular, Pass-Fail, Audit

Multi-level sculpture studio; continuation of media-specific sculpture courses with emphasis on contemporary art issues and individual directions in chosen media.

Prerequisite: ARTT333 or permission of department. Repeatable to 12 credits. Students must pay a $40.00 studio lab fee. Multi-level sculpture studio; continuation of media-specific sculpture courses with emphasis on contemporary art issues and individual directions in chosen media.

0101	Foon Sham	Seats (Total: 3)	
	TuTh 3:00pm - 5:30pm	ASY 1311	Lab

ARTT438E **Advanced Sculpture Studio; Advanced Steel and Multi-Media Sculpture**

Credits: 3

Grading Method: Regular, Pass-Fail, Audit

Multi-level sculpture studio; continuation of media-specific sculpture courses with emphasis on contemporary art issues and individual directions in chosen media.

Students must pay a $40.00 studio lab fee.

0101	John Ruppert	Seats (Total: 4)	
	MW 3:00pm - 5:30pm	ASY 1314	Lab

ARTT438H **Advanced Sculpture Studio; Honors Advanced Sculpture**

(Perm req)

Credits: 3

Grading Method: Regular, Pass-Fail, Audit

Multi-level sculpture studio; continuation of media-specific sculpture courses with emphasis on contemporary art issues and individual directions in chosen media.

Restricted to departmental honors students only. Prerequisite: 300-level sculpture course and permission of department. Students must pay a $40.00 studio lab fee.

0101	Foon Sham	Seats (Total: 2)	
	TuTh 3:00pm - 5:30pm	ASY 1311	Lab
0201	John Ruppert	Seats (Total: 2)	
	MW 12:30pm - 3:00pm	ASY 1314	Lab

0301	John Ruppert	Seats (Total: 2)	
	MW 3:00pm - 5:30pm	ASY 1314	Lab

ARTT448E **Advanced Printmaking Studio; Advanced Multi-Media Printmaking**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Multi-level printmaking studio; continuation of media-specific printmaking courses with emphasis on contemporary art issues and individual directions in chosen media.

Prerequisite: 300-level printmaking or permission of the department. Repeatable to 12 credits. Students must pay a $40.00 studio lab fee. Multi-level printmaking studio with emphasis on multi-media print processes and contemporary issues in print media.

0101	Jessica Gatlin	Seats (Total: 12)	
	TuTh 3:30pm - 6:00pm	ASY 1317	Lab

ARTT448H **Advanced Printmaking Studio; Honors Advanced Printmaking**

(Perm req)

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Multi-level printmaking studio; continuation of media-specific printmaking courses with emphasis on contemporary art issues and individual directions in chosen media.

Restricted to departmental honors students only. Prerequisite: 300-level printmaking course and permission of department. Students must pay a $40.00 studio lab fee.

0101	Jessica Gatlin	Seats (Total: 4)	
	TuTh 3:30pm - 6:00pm	ASY 1317	Lab
	Advanced multi-media printing.		

ARTT455 **Three Dimensional Graphic Design**

(Perm req)

Credits: 3 Grading Method: Regular, Pass-Fail

Prerequisite: ARTT355, ARTT356, and ARTT357. Recommended: ARTT333. Credit only granted for: ARTT352 or ARTT455. Formerly: ARTT352.

Continued exploration of advanced graphic design practices with primary emphasis on 3-D object and packaging design. Includes research, course reading discussion, oral presentations, and specific project assignments which will require a proficient level of hand-skills (craft) and computer skills.

Students must pay a $40.00 studio lab fee.

0101	Audra Buck-Coleman	Seats (Total: 25)	
	MW 12:30pm - 3:00pm	ASY 2322	Lab

ARTT456 **Motion Design**

(Perm req)

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Prerequisite: ARTT355, ARTT356, and ARTT357; or permission of ARHU-Art department.

Explores computer graphics and visual communication principles in a time-based context. Examination of fundamental design principles through digital projects that involve photo manipulation, digital illustration, layout, animation, and web design.

Students must pay a $40.00 studio lab fee.

0101	Rieko Chacey	Seats (Total: 15)	
	TuTh 9:00am - 11:30am	ASY 2322	Lab

ARTT458 **Graphic Design Portfolio; Advanced Graphic Design**

(Perm req)

Credits: 3 Grading Method: Regular, Pass-Fail

Creation of a comprehensive professional portfolio. Curriculum includes portfolio preparation and presentation, contracts, copyright issues, interviewing skills, resume and cover-letter writing, design briefs and proposals, and freelance business issues. Portfolio presentation includes basics of book arts.

Students must pay a $40.00 studio lab fee. Print publication and self promotion design.

0101	Kelsey Marotta	Seats (Total: 25)	
	MW 3:30pm - 6:00pm	ASY 2322	Lab

ARTT469 **Professional Practice**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Business aspects of being an artist, with an emphasis on starting and maintaining a professional career.

0101	Ryan Syrell	Seats (Total: 15)	
	Tu 12:30pm - 3:00pm	ASY 2314	

ARTT479A **Advanced Digital Media Studio; Multi-media projection and sound**

Credits: 3

Grading Method: Regular, Pass-Fail, Audit

Variable multi-level studio emphasizing advanced concepts and processes related to time-based, projection, installation, interactive, and audio/visual integrated digital art. Emphasis on contemporary art issues and individual directions.

Prerequisite ARTT370 or permission of Department. Students must pay a $40.00 studio lab fee. Variable multi-level studio emphasizing advanced concepts and processes related to time-based, projection, installation, interactive, and audio/visual integrated digital art. Emphasis on contemporary art issues and individual directions.

0101	Shannon Collis	Seats (Total: 14)	
	MW 12:30pm - 3:00pm	ASY 3304	Lab

ARTT479D **Advanced Digital Media Studio; Immersive and Virtual Environments**

Credits: 3

Grading Method: Regular, Pass-Fail, Audit

Variable multi-level studio emphasizing advanced concepts and processes related to time-based, projection, installation, interactive, and audio/visual integrated digital art. Emphasis on contemporary art issues and individual directions.

Prerequisite: ARTT370 or permission of Department. Introduction to the uses of game development software in an artistic context. Practical examination of interactive, immersive and installation art as mediated through the context of real-time computer generated imagery and game engine methodologies. Students must pay a $40.00 studio lab fee.

0101	Mollye Bendell	Seats (Total: 14)	
	MW 6:00pm - 8:30pm	ASY 3304	Lab

ARTT479E **Advanced Digital Media Studio; Art and Electronics**

Credits: 3

Grading Method: Regular, Pass-Fail, Audit

Variable multi-level studio emphasizing advanced concepts and processes related to time-based, projection, installation, interactive, and audio/visual integrated digital art. Emphasis on contemporary art issues and individual directions.

Prerequisite: ARTT370 or permission of Department. Studio course exploring the basics of building circuits with electronic components, motors, sensors, and Arduino technology in the context of interactive art and kinetic sculpture. Students must pay a $40.00 studio lab fee.

0101	Cy Keener	Seats (Total: 14)	
	MW 9:00am - 11:30am	ASY 3304	Lab

ARTT479H **Advanced Digital Media Studio; Honors Advanced Digital Media**

(Perm req)

Credits: 3

Grading Method: Regular, Pass-Fail, Audit

Variable multi-level studio emphasizing advanced concepts and processes related to time-based, projection, installation, interactive, and audio/visual integrated digital art. Emphasis on contemporary art issues and individual directions.

Prerequisite: ARTT370. Restricted to Departmental Honors students. Students must pay a $40.00 studio lab fee. Basics of sound recording, mixing, and processing, as well as creative applications of sound used for screen-based practices, performance and installation art. Theoretical concepts central to sound as an artistic medium are also introduced.

0101	Shannon Collis MW 12:30pm - 3:00pm	Seats (Total: 2) ASY 3304	Lab
0301	Cy Keener MW 9:00am - 11:30am	Seats (Total: 2) ASY 3304	Lab
0401	Mollye Bendell MW 6:00pm - 8:30pm	Seats (Total: 2) ASY 3304	Lab

ARTT489M **Advanced Special Topics in Art; Digital Media, Performance and Interactivity**

(Perm req)

Credits: 3

Grading Method: Regular, Pass-Fail

Advanced studio art and theory within the context of a special topic.

Studio-based course focusing on the theory, practice and creation of physically interactive immersive media experiences. Course explores the integration of technology and artistic performance, including methods and processes for computationally engaged audio/visual performances that enable artists to interact with responsive elements of the environment through smart textiles, visual body-tracking and gestural sensors, audio sampling and analysis, and other interactive modalities that drive media architectures for performance venues such visual projection mapping, mechatronic devices, and algorithmic music.

0101	Brandon Morse TuTh 3:00pm - 5:30pm	Seats (Total: 7) ASY 3304

ARTT489P **Advanced Special Topics in Art; Experimental Film and Video**

Credits: 3

Grading Method: Regular, Pass-Fail, Audit

Advanced studio art and theory within the context of a special topic.

Contact department for information to register for this course.

ARTT498A **Directed Studies in Studio Art**

(Perm req)

Credits: 1-3

Grading Method: Regular, Pass-Fail, Audit

Advanced independent work in Studio Art. Meeting with faculty and studio time arranged.

Students must pay a $40.00 studio lab fee.

Contact department for information to register for this course.

ARTT498B **Directed Studies in Studio Art**

(Perm req)

Credits: 1-3

Grading Method: Regular, Pass-Fail, Audit

Advanced independent work in Studio Art. Meeting with faculty and studio time arranged.

Students must pay a $40.00 studio lab fee.

Contact department for information to register for this course.

ARTT498H **Directed Studies in Studio Art; Honors Thesis**

(Perm req)

Credits: 2-3

Grading Method: Regular, Pass-Fail, Audit

Advanced independent work in Studio Art. Meeting with faculty and studio time arranged.

Restricted to departmental honors students only. Prerequisite: permission of department. Students must pay a $40.00 studio lab fee.

Contact department for information to register for this course.

ARTT618 **Drawing; Drawing**

(Perm req)

Credits: 3

Grading Method: Regular, Audit, Sat-Fail

Independent studies in drawing for advanced special students.

Students must pay a $60.00 studio lab fee.

Contact department for information to register for this course.

ARTT628 **Painting; Painting**

(Perm req)

Credits: 3

Grading Method: Regular, Audit, Sat-Fail

Graduate painting for advanced special students.

Students must pay a $60.00 studio lab fee.

Contact department for information to register for this course.

ARTT638 **Sculpture; Sculpture**

(Perm req)

Credits: 3 Grading Method: Regular, Audit, Sat-Fail

Independent studies in sculpture for advanced special students.

Students must pay a $60.00 studio lab fee.

Contact department for information to register for this course.

ARTT648 **Printmaking; Printmaking**

(Perm req)

Credits: 3 Grading Method: Regular, Audit, Sat-Fail

Independent studies in printmaking for advanced special students.

Students must pay a $60.00 studio lab fee.

Contact department for information to register for this course.

ARTT698A **Directed Graduate Studies in Studio Art**

(Perm req)

Credits: 1-4 Grading Method: Regular, Audit, Sat-Fail

Independent work. Meetings with faculty and studio time arranged.

Students must pay a $60.00 studio lab fee.

Contact department for information to register for this course.

ARTT698B **Directed Graduate Studies in Studio Art**

(Perm req)

Credits: 1-4 Grading Method: Regular, Audit, Sat-Fail

Independent work. Meetings with faculty and studio time arranged.

Students must pay a $60.00 studio lab fee.

Contact department for information to register for this course.

ARTT698C **Directed Graduate Studies in Studio Art; Graduate Teaching Practicum**

(Perm req)

Credits: 1-4

Grading Method: Regular, Audit, Sat-Fail

Independent work. Meetings with faculty and studio time arranged.

Students must pay a $60.00 studio lab fee.

Contact department for information to register for this course.

ARTT699A **Directed Graduate Studies in Studio Art**

(Perm req)

Credits: 1-4

Grading Method: Regular, Audit, Sat-Fail

Independent graduate studies.

Students must pay a $60.00 studio lab fee.

Contact department for information to register for this course.

ARTT699B **Directed Graduate Studies in Studio Art**

(Perm req)

Credits: 1-4

Grading Method: Regular, Audit, Sat-Fail

Independent graduate studies.

Students must pay a $60.00 studio lab fee.

Contact department for information to register for this course.

ARTT718 **Drawing; Drawing**

(Perm req)

Credits: 3

Grading Method: Regular, Audit, Sat-Fail

Independent studies in drawing for advanced special students.

Students must pay a $60.00 studio lab fee.

Contact department for information to register for this course.

ARTT728 **Painting; Painting**

(Perm req)

Credits: 3

Grading Method: Regular, Audit, Sat-Fail

Independent studies in painting for advanced special students.

Students must pay a $60.00 studio lab fee.

Contact department for information to register for this course.

ARTT738 **Sculpture; Sculpture**

(Perm req)

Credits: 3

Grading Method: Regular, Audit, Sat-Fail

Independent studies in sculpture for advanced special students.

Students must pay a $60.00 studio lab fee.

Contact department for information to register for this course.

ARTT748 **Printmaking; Printmaking**

(Perm req)

Credits: 3

Grading Method: Regular, Audit, Sat-Fail

Independent studies in printmaking for advanced special students.

Students must pay a $60.00 studio lab fee.

Contact department for information to register for this course.

ARTT768 **Graduate Colloquium**

(Perm req)

Credits: 2

Grading Method: Regular, Audit, Sat-Fail

Examines various aspects of art, art theory and criticism in a contemporary and multi-cultural context. Relates student work to this context.

Students must pay a $60.00 studio lab fee.

0101	Cy Keener	Seats (Total: 18)
	Th 6:30pm - 9:00pm	Location: TBA

ARTT798A **Directed Graduate Studies in Studio Art**

(Perm req)

Credits: 1-4

Grading Method: Regular, Audit, Sat-Fail

Independent graduate studies.

Students must pay a $60.00 studio lab fee.

Contact department for information to register for this course.

ARTT798B **Directed Graduate Studies in Studio Art**

(Perm req)

Credits: 1-4

Grading Method: Regular, Audit, Sat-Fail

Independent graduate studies.

Students must pay a $60.00 studio lab fee.

Contact department for information to register for this course.

ARTT799 **Master's Thesis Research**

Credits: 1-6 Grading Method: Sat-Fail

Contact department for information to register for this course.

ASTR Astronomy Spring 2020

ASTR100 **Introduction to Astronomy**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit CORE: PS General Education: DSNS

Credit only granted for: ASTR100, ASTR101, or ASTR120.

An elementary course in descriptive astronomy, especially appropriate for non-science students. Topics include the Sun, Moon, planets, stars, and nebulae, galaxies, and evolution of the Universe.

Discussion sections do not meet the first week of classes. Attend lecture before coming to discussion section.

0101	Melissa Hayes-Gehrke TuTh 9:30am - 10:45am M 10:00am - 10:50am	Seats (Total: 40) PHY 1412 ATL 2400	Discussion
0102	Melissa Hayes-Gehrke TuTh 9:30am - 10:45am M 2:00pm - 2:50pm	Seats (Total: 40) PHY 1412 ATL 2400	Discussion
0103	Melissa Hayes-Gehrke TuTh 9:30am - 10:45am M 3:00pm - 3:50pm	Seats (Total: 40) PHY 1412 ATL 2400	Discussion
0104	Melissa Hayes-Gehrke TuTh 9:30am - 10:45am F 11:00am - 11:50am	Seats (Total: 40) PHY 1412 ATL 2400	Discussion
0105	Melissa Hayes-Gehrke TuTh 9:30am - 10:45am F 12:00pm - 12:50pm	Seats (Total: 40) PHY 1412 ATL 2400	Discussion

0106	Melissa Hayes-Gehrke TuTh 9:30am - 10:45am F 1:00pm - 1:50pm	Seats (Total: 40) PHY 1412 ATL 2400	 Discussion

ASTR101 **General Astronomy**

Credits: 4 | Grading Method: Regular, Pass-Fail, Audit | CORE: PL | General Education: DSNL

Credit only granted for: ASTR100, ASTR101, or ASTR120.

Descriptive astronomy, appropriate for non-science majors. Sun, moon, planets, stars, nebulae, galaxies and evolution. Laboratory exercises include use of photographic material, computer simulations, and standard laboratory equipment.

Discussion sections and lab do not meet the first week of classes. Attend lecture before coming to discussion or lab section. Students must pay a $50.00 Laboratory Materials fee.

0101	Alberto Bolatto TuTh 11:00am - 12:15pm Tu 5:30pm - 7:30pm Tu 3:30pm - 4:20pm	Seats (Total: 20) PHY 1412 ATL 0254 ATL 2400	 Lab Discussion
0102	Alberto Bolatto TuTh 11:00am - 12:15pm W 8:30am - 10:30am Tu 3:30pm - 4:20pm	Seats (Total: 20) PHY 1412 ATL 0254 ATL 2400	 Lab Discussion
0103	Alberto Bolatto TuTh 11:00am - 12:15pm W 11:00am - 1:00pm W 10:00am - 10:50am	Seats (Total: 20) PHY 1412 ATL 0254 ATL 2400	 Lab Discussion
0104	Alberto Bolatto TuTh 11:00am - 12:15pm Th 8:30am - 10:30am W 10:00am - 10:50am	Seats (Total: 20) PHY 1412 ATL 0254 ATL 2400	 Lab Discussion
0105	Alberto Bolatto TuTh 11:00am - 12:15pm W 6:00pm - 8:00pm W 11:00am - 11:50am	Seats (Total: 20) PHY 1412 ATL 0254 ATL 2400	 Lab Discussion

0106	Alberto Bolatto	Seats (Total: 20)	
	TuTh 11:00am - 12:15pm	PHY 1412	
	F 1:00pm - 3:00pm	ATL 0254	Lab
	W 11:00am - 11:50am	ATL 2400	Discussion
0107	Alberto Bolatto	Seats (Total: 20)	
	TuTh 11:00am - 12:15pm	PHY 1412	
	W 1:00pm - 3:00pm	ATL 0254	Lab
	W 12:00pm - 12:50pm	ATL 2400	Discussion
0108	Alberto Bolatto	Seats (Total: 20)	
	TuTh 11:00am - 12:15pm	PHY 1412	
	F 9:00am - 11:00am	ATL 0254	Lab
	W 12:00pm - 12:50pm	ATL 2400	Discussion
0109	Alberto Bolatto	Seats (Total: 20)	
	TuTh 11:00am - 12:15pm	PHY 1412	
	Th 6:00pm - 8:00pm	ATL 0254	Lab
	W 2:00pm - 2:50pm	ATL 2400	Discussion
0110	Alberto Bolatto	Seats (Total: 20)	
	TuTh 11:00am - 12:15pm	PHY 1412	
	Th 3:30pm - 5:30pm	ATL 0254	Lab
	W 2:00pm - 2:50pm	ATL 2400	Discussion

ASTR121 **Introductory Astrophysics II - Stars and Beyond**

Credits: 4 | Grading Method: Regular, Pass-Fail, Audit | CORE: PL | General Education: DSNL

Prerequisite: ASTR120 and MATH140; or permission of CMNS-Astronomy department.

For students majoring in astronomy or with a strong interest in science. Includes instrumentation, stellar properties, stellar evolution, structure of the galaxy, other galaxies, large scale structure, Big Bang Theory, and future of the universe.

0101	Stuart Vogel	Seats (Total: 15)	
	TuTh 11:00am - 12:15pm	ATL 2428	
	M 11:00am - 1:00pm	ATL 0224	Lab
	F 1:00pm - 1:50pm	ATL 1114	Discussion

0102	Stuart Vogel	Seats (Total: 15)	
	TuTh 11:00am - 12:15pm	ATL 2428	
	M 2:00pm - 4:00pm	ATL 0224	Lab
	F 2:00pm - 2:50pm	ATL 1114	Discussion

ASTR230 **The Science and Fiction of Planetary Systems**

Credits: 3 | Grading Method: Regular, Pass-Fail, Audit | CORE: PS | General Education: DSNS, SCIS

Prerequisite: Must have math eligibility of MATH115 or higher; or MATH113.

Have you ever wondered if humans will ever terraform Mars or Europa so we could live there without a spacesuit? Has it ever crossed your mind how lucky you are that you live on a water-rich planet with an oxygen-rich atmosphere? Have you ever suspected novelists and scriptwriters of creating ridiculous planets that violate scientific laws? Does the fate of our planet's thin biosphere keep you up at night? How common is life in the Universe? These are difficult questions, but armed with the right information, you can answer all of them. The Science and Fiction of Planetary Systems will help you develop a deeper understanding of why planets are the way they are. Along the way, you'll see examples of mistakes made in classic science fiction movies, novels and short stories and get the chance to invent your own plausible planets!

0101	Alan Peel	Seats (Total: 42)	
	W 9:00am - 9:50am	PHY 1410	
	MWF 11:00am - 11:50am	ESJ 2309	Discussion
0102	Alan Peel	Seats (Total: 42)	
	W 9:00am - 9:50am	PHY 1410	
	MWF 12:00pm - 12:50pm	ESJ 2309	Discussion

ASTR288 **Special Projects in Astronomy**

(Perm req)

Credits: 1-3 | Grading Method: Regular, Pass-Fail

Independent study, short research projects, tutorial reading, and assisting with faculty research and teaching under special supervision.

A faculty sponsor must be found by the students prior to enrollment.

Contact department for information to register for this course.

ASTR288I **Special Projects in Astronomy; Introduction to the Astronomy Major**

(Perm req)

Credits: 1 | Grading Method: Regular, Pass-Fail, Audit

Independent study, short research projects, tutorial reading, and assisting with faculty research and teaching under special supervision.

Restriction: Permission of CMNS-Astronomy department. Introduces new Astronomy majors to the possible career paths that they might choose upon completion of an undergraduate Astronomy degree, soft skills that would be useful in these possible careers, and useful skills and knowledge to better prepare them for research as an undergraduate.

0101	Eric Yates	Seats (Total: 15)	
	M 4:00pm - 4:50pm	ATL 1106	

ASTR300 **Stars and Stellar Systems**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit General Education: DSNS

Prerequisite: ASTR100 or ASTR101; and completion of the CORE Distributive Studies requirement in Mathematics and Sciences or General Education Fundamental Studies requirement in Mathematics. Or permission of CMNS-Astronomy department.

Designed primarily for non-science majors. Study of stars-types, properties, evolution, and distribution in space; supernovae, pulsars, and black holes.

0101	A Surjalal Sharma	Seats (Total: 60)	
	TuTh 2:00pm - 3:15pm	ATL 2400	

ASTR320 **Theoretical Astrophysics**

Credits: 3 Grading Method: Regular, Pass-Fail

Prerequisite: ASTR121; and (PHYS270 and PHYS271; or PHYS273). Or permission of CMNS-Astronomy department.

Application of selected physics concepts in an astrophysical context. Topics would include gravity (Keplerian motion, Virial theorem, Roche limit, dynamical friction); gas dynamics (hydrostatic equilibrium, stellar models, spiral density waves), thermodynamics and statistical physics (Boltzmann distribution, Wien displacement, convective instability, degenerate gas); atomic physics (quantum principles, H atom, permitted and forbidden lines); radiation processes (line radiation, opacity).

0101	Massimo Ricotti	Seats (Total: 30)	
	TuTh 11:00am - 12:15pm	AJC 2134	
	W 1:00pm - 1:50pm	ATL 2428	Discussion

ASTR330 **Solar System Astronomy**

Credits: 3 | Grading Method: Regular, Pass-Fail, Audit | General Education: DSNS

Prerequisite: ASTR100 or ASTR101; and completion of the CORE Distributive Studies requirement in Mathematics and Sciences or the General Education Fundamental Studies requirement in Mathematics. Or permission of CMNS-Astronomy department. Credit only granted for: ASTR330 or GEOL212.

Designed primarily for non-science majors. The structure of planets and of their atmospheres, the nature of comets, asteroids, and satellites. Comparison of various theories for the origin of the solar system. Emphasis on a description of recent data and interpretation.

0101	Alan Peel	Seats (Total: 60)
	TuTh 12:30pm - 1:45pm	ATL 2400

ASTR350 Black Holes

Credits: 3 | Grading Method: Regular, Pass-Fail, Audit | General Education: DSNS

Prerequisite: ASTR100 or ASTR101; and completion of the CORE Distributive Studies requirement in Mathematics and Sciences or General Education Fundamental Studies requirement in Mathematics. Or permission of CMNS-Astronomy department. Credit only granted for: ASTR 398B or ASTR 350. Formerly: ASTR 398B.

Black holes are the most exotic prediction of Einstein's Theory of General Relativity and, amazingly, the Universe seems to manufacture these bizarre objects in copious numbers. As well as being the ultimate laboratory for studying the nature of space and time, they drive some of the most energetic and extreme phenomena known to astronomers (with quasars and gamma-ray bursts being just a couple of examples). In this introduction to the physics and astrophysics of black holes, we start by examining the basic physics of black holes, which fundamentally means understanding gravity. We then look at the nature of stellar-mass black holes and supermassive black holes. We will discuss the fairly recent realization that black holes may be crucial agents for regulating the growth of galaxies. Finally, we dive into the realm of theoretical physics and probe how black holes may provide a route for uncovering new laws of physics governing the structure of space and time.

0101	Richard Mushotzky	Seats (Total: 60)
	TuTh 11:00am - 12:15pm	ATL 2400

ASTR380 Life in the Universe - Astrobiology

Credits: 3 | Grading Method: Regular, Pass-Fail, Audit | General Education: DSNS

Designed primarily for non-science majors. Study of the astronomical perspective on the conditions for the origin and existence of life in the universe.

0101	Leo Deming	Seats (Total: 60)
	TuTh 9:30am - 10:45am	ATL 2400

ASTR399 **Honors Seminar**

(Perm req)

Credits: 1-16 Grading Method: Regular, Pass-Fail, Audit

Credit according to work done.

Contact department for information to register for this course.

ASTR410 **Radio Astronomy**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Prerequisite: ASTR121; and (PHYS271 and PHYS270; or PHYS273). Or permission of CMNS-Astronomy department.

Introduction to current observational techniques in radio astronomy. The radio sky, radiophysics, coordinates and catalogs, antenna theory, Fourier transforms, interferometry and arrays, aperture synthesis, and radio detectors.

0101	Lee Mundy	Seats (Total: 30)
	TuTh 3:30pm - 4:45pm	ATL 2428

ASTR430 **The Solar System**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Prerequisite: ASTR121; and (PHYS271 and PHYS270; or PHYS273). Or permission of CMNS-Astronomy department.

Formation and evolution of the Solar System. Planetary surfaces, interiors, atmospheres, and magnetospheres. Asteroids, comets, planetary satellites, and ring systems. Emphasis on using basic physics to understand observed properties of the Solar System. Intended for students majoring in the physical sciences.

0101	Jessica Sunshine	Seats (Total: 25)
	WF 2:00pm - 3:15pm	ATL 1113

ASTR498 **Special Problems in Astronomy**

(Perm req)

Credits: 1-6 Grading Method: Regular, Pass-Fail, Audit

Research or special study. Credit according to work done.

Contact department for information to register for this course.

ASTR606 **Stellar Structure and Evolution**

Credits: 3 Grading Method: Regular, Audit, Sat-Fail

Prerequisite: ASTR601; or permission of CMNS-Astronomy department.

Models of stellar atmospheres, methods of determinins properties of stars, physical principles governing stellar interior processes, observational data for determining stellar evolution, nuclear processes, stellar modeling.

0101	Suvi Gezari TuTh 12:30pm - 1:45pm	Seats (Total: 20) ATL 0201

ASTR620 **Galaxies**

Credits: 3 Grading Method: Regular, Audit, Sat-Fail

Restriction: Permission of CMNS-Astronomy department.

Galaxy classifications; Milky way: basic data, distribution of stars, gas, dust and relativistic particles, large-scale structure and rotation; Spiral galaxies: stellar dynamics and stability, density waves, star bursts, galactic center; Elliptical galaxies: stellar dynamics, cannabalism; galaxy formation.

0101	Sylvain Veilleux TuTh 2:00pm - 3:15pm	Seats (Total: 20) ATL 0201

ASTR688C **Special Topics in Modern Astronomy; Seminar in Modern Astronomy Research**

(Perm req)

Credits: 1 Grading Method: Regular, Sat-Fail

Special topics such as extragalactic radio sources, plasma astrophysics, the H.R. diagram, chemistry of the interstellar medium, radiophysics of the sun.

0101	Andrew Harris W 3:30pm - 5:30pm	Seats (Total: 30) ATL 2400

ASTR699 **Special Problems in Advanced Astronomy**

(Perm req)

Credits: 1-6 Grading Method: Regular, Sat-Fail

Contact department for information to register for this course.

ASTR799 **Master's Thesis Research**

Credits: 1-6 Grading Method: Sat-Fail

Contact department for information to register for this course.

ASTR898 **Pre-Candidacy Research**

Credits: 1-8 Grading Method: Sat-Fail

Contact department for information to register for this course.

ASTR899 **Doctoral Dissertation Research**

(Perm req)

Credits: 6 Grading Method: Sat-Fail

Contact department for information to register for this course.

BCHM Biochemistry Spring 2020

BCHM111Y **BrewMD**

Credits: 1 Grading Method: Regular, Pass-Fail

Prerequisite: none. Corequisite: none. Recommended: none. Restriction: none. Additional information: This is a student initiated course (STIC). As such it will be lead by student instructors under the supervision of a departmental faculty member.

This course is for those interested in learning how to brew. We will discuss the theory behind brewing alcohol, the mechanisms that govern the process of yeast fermentation, and the proper techniques for applying that knowledge to produce alcoholic/fermented beverages in a safe, sterile, and efficient manner. This course will delve into the history of brewing on the planet, which several historians have stated is the reason for the development of stationary cultures. We will delve into the evolution of the modern brewing industry, from home breweries to multinational brewing corporations. This course will look into the complex distribution networkrequired to market the brewed products globally. Ultimately we will apply the knowledge taught in this class to brew mead, beer, and cider in a safe sterile setting.

0101	Lee Friedman	Seats (Total: 30)
	W 4:00pm - 4:50pm	CHM 0128

The College of Computer, Mathematical and Natural Sciences enforces course prerequisites. Students who do not meet the course prerequisites will be administratively dropped from the course. Registration in course sections which begin with "SES" is restricted to students admitted into the Science in the Evening Program, administered through the Office of Extended Studies. For complete information, visit: http://oes.umd.edu/index.php?slab=sie , e-mail oes@umd.edu, or call 301-405-7762.*

BCHM461 **Biochemistry I**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Prerequisite: Minimum grade of C- in CHEM271 and CHEM272; or minimum grade of C- in CHEM276 and CHEM277. Credit only granted for: BCHM461 or BCHM463.

First semester of a comprehensive introduction to modern biochemistry. Structure, chemical properties, and function of proteins and enzymes, carbohydrates, lipids, and nucleic acids. Basic enzyme kinetics and catalytic mechanisms.

0101	Jinwoo Lee TuTh 9:30am - 10:45am	Seats (Total: 82) CHM 1407
0102	Douglas Julin TuTh 12:30pm - 1:45pm	Seats (Total: 82) CHM 1402
0103	Paul Paukstelis MWF 9:00am - 9:50am	Seats (Total: 82) PLS 1140

BCHM462 **Biochemistry II**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Prerequisite: Minimum grade of C- in BCHM461. Credit only granted for: BCHM462 or BCHM463.

A continuation of BCHM 461. Metabolic pathways and metabolic regulation, energy transduction in biological systems, enzyme catalytic mechanisms.

0101	Myles Poulin TuTh 2:00pm - 3:15pm	Seats (Total: 78) CHM 1402
0102	Douglas Julin MWF 1:00pm - 1:50pm	Seats (Total: 78) CHM 1402

BCHM463 **Biochemistry of Physiology**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Prerequisite: Minimum grade of C- in CHEM271 and CHEM272; or minimum grade of C- in CHEM276 and CHEM277. Credit only granted for: BCHM461, BCHM462 or BCHM463.

A one-semester introduction to general biochemistry. A study of protein structure, enzyme catalysis, metabolism, and metabolic regulation with respect to their relationship to physiology.

0101	Nicole LaRonde MWF 2:00pm - 2:50pm	Seats (Total: 130) CHM 1402	
0201	Christopher Capp TuTh 2:00pm - 3:15pm	Seats (Total: 117) PHY 1410	
SES1	Bonnie Dixon M 6:30pm - 9:30pm	Seats (Total: 45) CHM 2201 *Restricted to students in the SIE Program. Click here for more information.*	

BCHM464 **Biochemistry Laboratory**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Prerequisite: BCHM461 or BCHM463; and a grade of C- or better in the prerequisite is required for all College of Computer, Mathematical, and Natural Sciences majors and recommended for all students. Corequisite: BCHM465. Restriction: BCHM, CHEM, and Nutritional Sciences majors have first priority, followed by other life science majors.

Biochemical and genetic methods for studying protein function. Site-directed mutagenesis and molecular cloning, protein purification, enzyme activity assays, computer modeling of protein structure.

Students must pay a $40.00 lab materials fee.

0101	Christopher Capp Th 11:00am - 11:50am M 1:00pm - 5:50pm	Seats (Total: 18) CHM 1402 ESJ 0316	 Lab
0102	Christopher Capp Th 11:00am - 11:50am Tu 12:30pm - 5:20pm	Seats (Total: 18) CHM 1402 ESJ 0316	 Lab
0103	Christopher Capp Th 11:00am - 11:50am W 1:00pm - 5:50pm	Seats (Total: 18) CHM 1402 ESJ 0316	 Lab

BCHM465 **Biochemistry III**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit CORE: CS

Prerequisite: BCHM461 or BCHM463; and a grade of C- or better in the prerequisite is required for College of Computer, Mathematical, and Natural Sciences majors and recommended for all students. Recommended: BCHM462.

CORE Capstone (CS) Course. An advanced course in biochemistry. Biochemical approach to cellular information processing. DNA and RNA structure. DNA replication, transcription, and repair. Translation of mRNA to make proteins.

0101	Theodore Dayie	Seats (Total: 80)
	MWF 12:00pm - 12:50pm	CHM 1402

BCHM485 Physical Biochemistry

Credits: 3

Grading Method: Regular, Pass-Fail, Audit

Prerequisite: Minimum grade of C- in CHEM481. Restriction: Must be in Biochemistry program; or permission of instructor. Credit only granted for: CHEM482 or BCHM485.

Physical Chemistry with applications to biological systems. Principal topics: quantum chemistry, spectroscopy, structural methods for biological macromolecules, statistical thermodynamics, transport processes in liquid phase, chemical and biochemical kinetics, modeling and simulation, polymer dynamics.

0101	David Fushman	Seats (Total: 55)
	TuTh 9:30am - 10:45am	CHM 2201

BCHM675 Biophysical Chemistry

Credits: 3

Grading Method: Regular, Audit, Sat-Fail

Prerequisite: CHEM481 and BCHM461; or students who have taken courses with comparable content may contact the department.

Conformation, shape, structure, conformational changes, dynamics and interactions of biological macromolecules and complexes or arrays of macromolecules. Physical techniques for studying properties of biological macromolecules.

0101	Dorothy Beckett	Seats (Total: 25)
	TuTh 9:30am - 10:45am	CHM 0124

BCHM676 Biological Mass Spectrometry

Credits: 3

Grading Method: Regular, Audit, Sat-Fail

Prerequisite: BCHM461 or BCHM463. Formerly: BCHM669B.

Fundamentals of modern mass spectrometry and use with biochemical techniques to provide unique analyses of drug metabolites, lipids, carbohydrates, nucleotides and proteins. The interface with bioinformatics will be examined, which provides the foundation of proteomics.

0101	Peter Nemes	Seats (Total: 20)
	TuTh 12:30pm - 1:45pm	CHM 0124

BCHM698 **Literature Seminar in Biochemistry**

(Perm req)

Credits: 2 Grading Method: Regular, Sat-Fail

Students will prepare and present a departmental seminar based on a topic in the current biochemical research literature.

0101	Instructor: TBA	Seats (Total: 10)
	Contact instructor or department for details.	

BCHM699 **Special Problems in Biochemistry**

(Perm req)

Credits: 1-6 Grading Method: Regular, Audit, Sat-Fail

Laboratory experience in a research environment. Restricted to students in the non-thesis M.S. option.

Open only to non-thesis M.S. degree candidates.

Contact department for information to register for this course.

BCHM799 **Master's Thesis Research**

Credits: 1-6 Grading Method: Sat-Fail

Contact department for information to register for this course.

BCHM889A **Seminar; Biochemistry**

Credits: 1 Grading Method: Regular, Audit, Sat-Fail

0101	Myles Poulin	Seats (Total: 35)
	Tu 11:00am - 11:50am	CHM 0112

BCHM889B **Seminar**

(Perm req)

Credits: 1-3

Grading Method: Regular, Audit, Sat-Fail

0101	Instructor: TBA	Seats (Total: 10)
	Contact instructor or department for details.	

BCHM889D **Seminar; Enzymology of Recombination**

(Perm req)

Credits: 1

Grading Method: Regular, Audit, Sat-Fail

0101	Instructor: TBA	Seats (Total: 5)
	Contact instructor or department for details.	

BCHM889F **Seminar; Bacterial Spores**

(Perm req)

Credits: 1

Grading Method: Regular, Audit, Sat-Fail

0101	Instructor: TBA	Seats (Total: 5)
	Contact instructor or department for details.	

BCHM889G **Seminar; Biological Mass Spectrometry**

(Perm req)

Credits: 1

Grading Method: Regular, Audit, Sat-Fail

0101	Instructor: TBA	Seats (Total: 5)
	Contact instructor or department for details.	

BCHM889M **Seminar; Modern Methods in NMR and Structural Biology**

Credits: 1

Grading Method: Regular, Audit, Sat-Fail

0101	Instructor: TBA	Seats (Total: 10)
	Contact instructor or department for details.	

BCHM898 **Pre-Candidacy Research**

(Perm req)

Credits: 1-8

Grading Method: Regular, Sat-Fail

Contact department for information to register for this course.

BCHM899 **Doctoral Dissertation Research**

(Perm req) Credits: 6 Grading Method: Sat-Fail

Contact department for information to register for this course.

BIOE Bioengineering Spring 2020

BIOE120 **Biology for Engineers**

(Perm req) Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Prerequisite: Must have completed or be concurrently enrolled in MATH140. Restriction: Permission of ENGR-Fischell Department of Bioengineering department.

Introduction to the functions and interactions of biological systems from a quantitative perspective. Introduction to the modern experimental techniques and methods of data analysis. Roles for bioengineers in biology, and the role of biology in bioengineering will be elucidated.

0101	Ganesh Sriram TuTh 2:00pm - 3:15pm W 5:00pm - 5:50pm	Seats (Total: 21) ESJ 1215 AJC 2119	 Discussion
0102	Ganesh Sriram TuTh 2:00pm - 3:15pm W 4:00pm - 4:50pm	Seats (Total: 23) ESJ 1215 AJC 2119	 Discussion
0201	Angela Jones MWF 2:00pm - 2:50pm F 1:00pm - 1:50pm	Seats (Total: 22) ESJ 1215 ESJ 1215	 Discussion
0202	Angela Jones MWF 2:00pm - 2:50pm F 3:00pm - 3:50pm	Seats (Total: 20) ESJ 1215 ESJ 1215	 Discussion
0301	Birthe Kjellerup TuTh 11:00am - 12:15pm W 11:00am - 11:50am	Seats (Total: 21) ESJ 1202 AJC 2132	 Discussion
0302	Birthe Kjellerup TuTh 11:00am - 12:15pm F 10:00am - 10:50am	Seats (Total: 20) ESJ 1202 AJC 2119	 Discussion

BIOE121 **Biology for Engineers Laboratory**

(Perm req) Credits: 1 Grading Method: Regular, Pass-Fail, Audit

Prerequisite: Must have completed or be concurrently enrolled in BIOE120. Restriction: Permission of ENGR-Fischell Department of Bioengineering department.

Bioengineering encompasses numerous sub-disciplines that apply engineering principles to analyze biological systems and that utilize engineering design strategies to solve biological and biomedical problems. This course is aimed at providing students with the opportunity to learn how biology and engineering can synergistically contribute to our understanding of such problems, and to gain hands-on experience in basic techniques relevant to Bioengineering.

0101	Angela Jones M 12:00pm - 12:50pm Tu 9:30am - 11:30am	Seats (Total: 20) ESJ 1224 AJC 1121	 Lab
0102	Angela Jones M 12:00pm - 12:50pm Tu 3:30pm - 5:30pm	Seats (Total: 20) ESJ 1224 AJC 1121	 Lab
0103	Angela Jones M 12:00pm - 12:50pm Th 10:00am - 12:00pm	Seats (Total: 20) ESJ 1224 AJC 1121	 Lab
0104	Angela Jones M 12:00pm - 12:50pm Th 2:00pm - 4:00pm	Seats (Total: 20) ESJ 1224 AJC 1121	 Lab

BIOE221 **Academic and Career Planning**

(Perm req)

Credits: 1 Grading Method: Regular, Pass-Fail

Prerequisite: BIOE120 and BIOE121. Restriction: Permission of ENGR-Fischell Department of Bioengineering department.

Provides practical tools to help Bioengineering majors think critically about their goals and career paths. Guides Bioengineering students through accessing useful resources both on- and off-campus.

0101	Bill Churma M 4:00pm - 4:50pm	Seats (Total: 30) AJC 2134	
0201	Abby Shantzis M 4:00pm - 4:50pm	Seats (Total: 30) AJC 2119	

BIOE232 **Bioengineering Thermodynamics**

(Perm req)

Credits: 3

Grading Method: Regular, Pass-Fail, Audit

Prerequisite: PHYS261 and PHYS260. Restriction: Permission of ENGR-Fischell Department of Bioengineering department. Credit only granted for: BIOE232, ENES232, ENME232, or ENME320.

A quantitative introduction to thermodynamic analysis of bioengineering systems. Bioengineering encompasses a wide range of applications from nanoscale interactions (e.g. reactions between molecules), to cellular interactions (e.g. membrane electrical currents), to overall balances on organisms, all the way to large scale manufacturing. Each of these applications (and many others not mentioned) involve energy interactions which is the domain of thermodynamics. The basic laws of thermodynamics will be introduced and explained through a series of examples related to bioengineering systems.

0101	Silvina Matysiak TuTh 12:30pm - 1:45pm M 1:00pm - 1:50pm	Seats (Total: 35) IRB 0318 AJC 2132	Discussion
0102	Silvina Matysiak TuTh 12:30pm - 1:45pm W 1:00pm - 1:50pm	Seats (Total: 35) IRB 0318 AJC 2132	Discussion

BIOE241 **Biocomputational Methods**

(Perm req)

Credits: 3

Grading Method: Regular, Pass-Fail, Audit

Restriction: Permission of ENGR-Fischell Department of Bioengineering department.

Application of computer technology to biological and natural resource systems considering engineering aspects. Designed to help students in the use of computer technology for problem solving. The course will cover 4-5 software packages important for later use by the student.

0201	Lan Ma MWF 10:00am - 10:50am	Seats (Total: 31) KEB 2111	
0301	Lan Ma MWF 3:00pm - 3:50pm	Seats (Total: 36) KEB 2111	

BIOE331 **Biofluids**

(Perm req)

Credits: 3

Grading Method: Regular, Pass-Fail

Prerequisite: MATH246, BIOE120, BIOE121, BIOE241, and BIOE371; and must have completed or be concurrently enrolled in BIOE232. Restriction: Permission of ENGR-Fischell Department of Bioengineering department. Credit only granted for: BIOE331, ENCE305, ENFP300 or ENME331.

Principles and applications of fluid mechanics with a focus on bioengineering topics. Content includes conservation of mass, momentum, and energy, as well as the application of these fundamental relations to hydrostatics, control volume analysis, internal and external flow, and boundary layers. Applications to biological and bioengineering problems such as tissue engineering, bioprocessing, imaging, and drug delivery.

0101	Alisa Clyne MWF 11:00am - 11:50am F 1:00pm - 2:50pm	Seats (Total: 30) IRB 1116 AJC 2121	Discussion
0102	Alisa Clyne MWF 11:00am - 11:50am F 3:00pm - 4:50pm	Seats (Total: 30) IRB 1116 AJC 2121	Discussion

BIOE332 **Transport Process Design**

(Perm req)

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Prerequisite: BIOE331. Restriction: Permission of ENGR-Fischell Department of Bioengineering department.

Fluid flow, heat transfer, and mass transfer with applications in medicine, environment, biotechnology, food, agriculture, and other biosystems. Design of solutions to current problems in biological engineering is emphasized.

0101	Katharina Maisel TuTh 9:30am - 10:45am	Seats (Total: 40) AJC 2132

BIOE340 **Modeling Physiological Systems and Lab**

(Perm req)

Credits: 4 Grading Method: Regular, Pass-Fail, Audit

Prerequisite: BSCI330, BIOE120, BIOE121, BIOE241, and MATH246. Restriction: Permission of ENGR-Fischell Department of Bioengineering department. Credit only granted for: BIOE340 or (BSCI440 and BSCI441).

Topics covered will include cell and general physiology, membrane physiology, blood cells and clotting, circulation, metabolism, respiration, and the nervous system. A lab component will also be included.

0101	Steven Jay TuTh 11:00am - 12:15pm Th 5:00pm - 6:30pm W 9:00am - 9:50am	Seats (Total: 40) CSI 2117 KEB 2111 AJC 2132	 Lab Discussion
0102	Steven Jay TuTh 11:00am - 12:15pm Th 5:00pm - 6:30pm W 4:00pm - 4:50pm	Seats (Total: 30) CSI 2117 KEB 2107 AJC 2134	 Lab Discussion

BIOE371 **Linear Systems and Ordinary Differential Equations for Bioengineering Applications**

(Perm req)

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Prerequisite: BIOE241; and must have completed or be concurrently enrolled in MATH246. Restriction: Permission on ENGR-Fischell Department of Bioengineering department.

This class utilizes fundamentals in linear systems, including eigenvalues and eigenvectors, as well as linear differential equations, to study various problems in bioengineering and biological systems, with a particular emphasis on feedback, stability, controllability, and control design.

0101	Jose Aranda-Espinoza TuTh 9:30am - 10:45am F 12:00pm - 12:50pm	Seats (Total: 30) KEB 1200 AJC 2121	 Discussion
0102	Jose Aranda-Espinoza TuTh 9:30am - 10:45am W 11:00am - 11:50am	Seats (Total: 30) KEB 1200 AJC 2134	 Discussion

BIOE372 **Biostatistics for Experimental Design and Data Analysis**

(Perm req)

Credits: 3 Grading Method: Regular, Pass-Fail

Prerequisite: BIOE120, BIOE121, and BIOE241. Recommended: MATH246. Restriction: Permission of ENGR-Fischell Department of Bioengineering department. Credit only granted for: BIOE372 or STAT464.

This course will instruct students in the fundamentals of probability and statistics through examples in biological phenomenon, the design of bioengineering experiments, and clinical data analysis. Fundamentals covered in the course include probability distributions, hypothesis testing, power analysis, regression analysis, and correlation analysis.

0101	Angela Jones MWF 10:00am - 10:50am W 12:00pm - 12:50pm	Seats (Total: 35) ESJ 2212 ESJ 1309	 Discussion
0102	Angela Jones MWF 10:00am - 10:50am W 1:00pm - 1:50pm	Seats (Total: 35) ESJ 2212 ESJ 1309	 Discussion

BIOE389C **Special Projects in Bioengineering; Bioengineering Design Competitions**

(Perm req)

Credits: 1 Grading Method: Regular, Pass-Fail

Exploring a variety of projects in Bioengineering.

BIOE389 cannot be used as a technical elective towards the BIOE curriculum requirements.

0101	Steven Jay Th 7:00pm - 9:00pm	Seats (Total: 20) Location: TBA

BIOE389F **Special Projects in Bioengineering; iGEM Research Seminar**

(Perm req)

Credits: 2 Grading Method: Regular, Pass-Fail, Audit

Exploring a variety of projects in Bioengineering.

Cross-listed with BSCI338F. Credit granted for BSCI338F or BIOE389F.

0101	Jason Kahn, Edward Eisenstein Th 3:00pm - 4:50pm	Seats (Total: 30) ATL 1114

BIOE399 **Independent Study in Bioengineering**

(Perm req)

Credits: 1-3 Grading Method: Regular, Pass-Fail, Audit

Independent study.

Prerequisite: permission of department.

Contact department for information to register for this course.

BIOE399H **Independent Study in Bioengineering**

(Perm req)

Credits: 1-3 Grading Method: Regular, Pass-Fail, Audit

Independent study.

Contact department for information to register for this course.

BIOE413 **Stem Cell Engineering**

(Perm req)

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Prerequisite: BIOE241, BIOE120, BIOE121, MATH246, and BSCI330; and must have completed or be concurrently enrolled in BIOE340. Restriction: Permission of ENGR-Fischell Department of Bioengineering department. Jointly offered with: BIOE613. Credit only granted for: BIOE489J, BIOE413, BIOE689J or BIOE613. Formerly: BIOE489J.

Provides an introduction to the role of stem cells in tissue growth and development, the engineering of stem cells and their environments for regenerative medicine applications, and disease modeling. Topics covered will include basic stem cell biology and mechanobiology; experimental methods for growing, differentiating, studying, and characterizing stem cells; stem cell integration into engineered microenvironments (e.g., tissue scaffolds and biomaterials, organ-on-chip devices, 3D-printed biomaterials); stem cell engineering in clinical applications and disease models; and ethical, commercialization, and regulatory issues in the field of stem cell engineering.

0101	Kimberly Stroka TuTh 11:00am - 12:15pm	Seats (Total: 36) IRB 2207	

BIOE420 **Bioimaging**

(Perm req)

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Prerequisite: MATH246, BIOE120, BIOE121, and BIOE241. Restriction: Permission of ENGR-Fischell Department of Bioengineering department.

Examines the physical principles behind major biomedical imaging modalities and new ways of using images for bio-related applications.

0101	Bahaa Ghammraoui TuTh 3:30pm - 4:45pm W 1:00pm - 1:50pm	Seats (Total: 30) CSI 2117 AJC 2134	Discussion
0102	Bahaa Ghammraoui TuTh 3:30pm - 4:45pm F 1:00pm - 1:50pm	Seats (Total: 30) CSI 2117 AJC 2132	Discussion

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BIOE433 **Optical Microscopy**

(Perm req)

Credits: 3

Grading Method: Regular, Pass-Fail, Audit

Prerequisite: BIOE120, BIOE121, BIOE241, BIOE371, and MATH246. Restriction: Permission of ENGR-Fischell Department of Bioengineering department. Credit only granted for: BIOE489I or BIOE433. Formerly: BIOE489I.

Includes a large variety of techniques central in many fields of biological and engineering research as well as clinical medicine. This course will provide a comprehensive overview of the fundamentals of optical microscopy. At a fundamental level, the course will cover the interaction of light with tissue, cells and biomaterials, and the mathematical foundations that describe optical systems.

0101	Giuliano Scarcelli	Seats (Total: 20)
	Tu 12:30pm - 3:00pm	AJC 2134

BIOE437 **Computer-Aided Design in Bioengineering**

(Perm req)

Credits: 3

Grading Method: Regular, Pass-Fail, Audit

Prerequisite: BIOE120, BIOE121, BIOE241, and MATH246; or permission of ENGR-Fischell Department of Bioengineering department. Restriction: Permission of ENGR-Fischell Department of Bioengineering department. Credit only granted for: BIOE437, BIOE689V, ENME414, ENME272, or ENAE488D. Formerly: BIOE689V.

Introduction to Computer-Aided Design (CAD). Basic CAD operations will be demonstrated in class with Creo Parametric (formerly Pro/E). Lecture topics will summarize design methodology, review best-practices in hardware development, and discuss engineering applications. The course will culminate in a student-selected project leveraging CAD.

0101	Milton Davis	Seats (Total: 40)
	Tu 5:00pm - 8:00pm	KEB 2111

BIOE453 **Biomaterials**

(Perm req)

Credits: 3

Grading Method: Regular, Pass-Fail, Audit

Prerequisite: CHEM231, MATH246, CHEM232, BIOE120, BIOE121, and BIOE241. Restriction: Permission of ENGR-Fischell Department of Bioengineering department. Credit only granted for: BIOE453, CHBE457, or ENMA425.

Examination of the structure and function of natural biomaterials, and cell-extracellular matrix interactions. Study physical properties of synthetic biomaterials for biomedical applications. Understanding molecular level interactions between biomolecules and biomaterials to design novel biomaterials with desirable characteristics. Application of biomaterials as implants, drug delivery systems, biosensors, engineered materials such as artificial skin and bone growth scaffolds will be covered.

0101	Xiaoming He MWF 12:00pm - 12:50pm M 11:00am - 11:50am	Seats (Total: 30) KEB 1200 AJC 2121	Discussion
0102	Xiaoming He MWF 12:00pm - 12:50pm M 1:00pm - 1:50pm	Seats (Total: 30) KEB 1200 AJC 2121	Discussion

BIOE457 **Biomedical Electronics & Instrumentation**

(Perm req)

Credits: 4 Grading Method: Regular, Pass-Fail, Audit

Prerequisite: BIOE120, BIOE121, BIOE241, PHYS261, MATH246, and PHYS260. Restriction: Permission of ENGR-Fischell Department of Bioengineering department.

Students learn fundamental concepts of electronics, assembly of electronic components into functional circuits, and integration of functional electronic devices and circuits into a system. In the lab component, students will learn to assemble and evaluate circuits and systems.

0101	Ian White MWF 2:00pm - 2:50pm W 11:00am - 12:50pm	Seats (Total: 39) IRB 0318 AJC 1121	Lab
0102	Ian White MWF 2:00pm - 2:50pm W 3:00pm - 4:50pm	Seats (Total: 39) IRB 0318 AJC 1121	Lab

BIOE461 **Synthetic Biology and Biological Engineering**

(Perm req)

Credits: 3 Grading Method: Regular, Pass-Fail

Prerequisite: BIOE120, BIOE121, BIOE241, and MATH246; or permission of ENGR-Fischell Department of Bioengineering department. Recommended: Completion of BSCI222 and/or BSCI330 recommended. Restriction: Permission of ENGR-Fischell Department of Bioengineering department. Credit only granted for: BIOE489G or BIOE 461. Formerly: BIOE489G.

Students are introduce to the scientific foundation and concepts of synthetic biology and biological engineering. Current examples that apply synthetic biology to fundamental and practical challenges will be emphasized. The course will also address the societal issues of synthetic biology, and briefly examine interests to regulate research in this area.

0101	Edward Eisenstein	Seats (Total: 65)
	TuTh 12:30pm - 1:45pm	ESJ 1215

BIOE463 **Spatial Control of Biological Agents**

(Perm req)

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Prerequisite: BIOE120, BIOE121, BIOE241, and MATH246; and must have completed or be concurrently enrolled in BIOE332. Restriction: Permission of ENGR-Fischell Department of Bioengineering department.

Description and solution of the movement of passive and active biological agents in homogeneous and heterogeneous bioenvironments using partial differential equations and numerical methods. Identification and diagnosis of hot spots. Prescription of control strategies using techniques from Artificial Intelligence (AI) and verification of effectiveness. Applications environments may include landscapes and tissues.

0101	Hubert Montas	Seats (Total: 24)
	TuTh 2:00pm - 3:15pm	AJC 2132

BIOE486 **Capstone Design II**

(Perm req)

Credits: 3 Grading Method: Regular, Pass-Fail, Audit CORE: CS

Prerequisite: Must have completed BIOE485 in the immediately preceding semester. Restriction: Senior standing; and must be in Engineering: Bioengineering program; and permission of ENGR-Fischell Department of Bioengineering department. Credit only granted for: BIOE486 or ENBE486. Formerly: ENBE486.

This is the second part of the senior capstone design course. This part is independent instruction where faculty mentoring each project team works with students to order supplies, fabricate their proposed design under BIOE485, test the design, write the report and present it to their fellow seniors and board of faculty mentors. Students are taught to convert the blue print of a design to actual device and test it.

0101	Lan Ma	Seats (Total: 130)	
	M 5:30pm - 8:00pm	ESJ 1202	
	M 4:00pm - 4:50pm	ESJ 1202	Lab

BIOE489F **Special Topics in Bioengineering; CFD/FEA Applications in Bioengineering**

(Perm req)

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Exploring a variety of topics with Bioengineering.

Prerequisites: BIOE120, BIOE121, MATH241, BIOE241; recommended: BIOE489C.Covers Computational Fluid Dynamics (CFD) and Finite Element Analysis (FEA) as applicable to Bioengineering.

0101	Frank Modica	Seats (Total: 20)
	W 6:00pm - 9:00pm	KEB 2107

BIOE489H **Special Topics in Bioengineering; BIOE Honors Seminar**

(Perm req)

Credits: 1-3 Grading Method: Regular, Pass-Fail, Audit

Exploring a variety of topics with Bioengineering.

0101	Kimberly Stroka	Seats (Total: 40)
	Contact instructor or department for details.	

BIOE489Q **Special Topics in Bioengineering; Engineering Approaches to Photomedicine**

(Perm req)

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Exploring a variety of topics with Bioengineering.

Prereqs: BIOE120, BIOE121, BIOE241, and MATH246. Introduces students to the fundamentals of photophysics, photochemistry, and photobiology. Engineering of selective photosensitizers, optically active nanomedicine and alternative light sources for photodynamic therapy, photothermal therapy, and imaging will be covered. Other light-based therapies, including laser surgery, low-level light therapy,and light-activated tissue repair and regeneration, will also befeatured. The course will briefly cover radiation, magnetic, and ultrasound-based technologies to highlight other extrinsic activation mechanisms for drugdelivery and phototherapy. Students will have the opportunity to review and present research articles on these emerging phototherapies and participate in lab experiments to gain a greater awareness of current advancements and refine skills in literature review.

0101	Huang Chiao Huang	Seats (Total: 20)
	MWF 3:00pm - 3:50pm	AJC 2119

BIOE489T **Special Topics in Bioengineering; Biopharmaceutical Process Development and Manufacturing**

(Perm req)

Credits: 3

Grading Method: Regular, Pass-Fail, Audit

Exploring a variety of topics with Bioengineering.

Prerequisite: BIOE120 and permission of Fischell Department of Bioengineering. Crosslisted with CHBE474.

0101	Deborah Goldberg	Seats (Total: 5)
	MW 12:30pm - 1:45pm	AJC 2119

BIOE489Z **Special Topics in Bioengineering; Macro-scale Biomechanics**

(Perm req)

Credits: 3

Grading Method: Regular, Pass-Fail, Audit

Exploring a variety of topics with Bioengineering.

Prereqs: BIOE120, BIOE121, BIOE241, MATH246, ENES102.

0101	Li-Qun Zhang	Seats (Total: 30)
	TuTh 2:00pm - 3:15pm	AJC 2121

BIOE604 **Cellular and Physiological Transport Phenomena**

(Perm req)

Credits: 3

Grading Method: Regular, Audit, Sat-Fail

Restriction: Permission of ENGR-Fischell Department of Bioengineering department.

A study of transport processes, including momentum, energy and mass transport, relevant to biosystems at various scales from physiological to cellular systems. Transport leads to sets of partial differential equations and the course revolves around approaches to solving these equations to arrive at fundamental understanding of the physics of transport in biosystems.

0101	Marina Pranda	Seats (Total: 30)
	TuTh 9:30am - 10:45am	AJC 2134

BIOE606 **BIOE Graduate Studies II**

(Perm req)

Credits: 1

Grading Method: Regular, Audit, Sat-Fail

Restriction: Must be in ENGR: PhD Only-Bioengineering (Doctoral) program.

Second semester continued acclimation to the bioengineering graduate program. Students gain exposure to departmental research through lab rotation and to current research in the field through seminar.

0101	Jose Aranda-Espinoza	Seats (Total: 20)	
	F 9:00am - 9:50am	AJC 2121	
	F 10:00am - 10:50am	AJC 2121	Discussion

BIOE608 **Bioengineering Seminar Series**

(Perm req)

Credits: 1

Grading Method: Sat-Fail, Audit

A variety of topics related to Bioengineering will be presented in weekly seminars.

Restriction: Must be in one of the following programs (ENGR: PhD Only-Bioengineering (Master's); ENGR: PhD Only-Bioengineering (Doctoral)).

0101	Kimberly Stroka	Seats (Total: 25)
	F 9:00am - 9:50am	AJC 2132

BIOE611 **Advanced Tissue Engineering**

(Perm req)

Credits: 3

Grading Method: Regular, Audit, Sat-Fail

Prerequisite: Must have completed at least one biology course; and MATH241. Or permission of ENGR-Fischell Department of Bioengineering department. Recommended: BSCI330 and BIOE340. Restriction: Permission of ENGR-Fischell Department of Bioengineering department.

A review of the fundamental principles involved in the design of engineered tissues and organs. Both biological and engineering fundamentals will be considered.

0101	Martha Wang	Seats (Total: 16)
	Th 12:30pm - 3:00pm	AJC 2134

BIOE658A **Special Topics in Bioengineering (M.Eng.); Additive Manufacturing for Bioengineering Applications**

(Perm req)

Credits: 3

Grading Method: Regular, Audit, Sat-Fail

Special topics in Bioengineering.

For Master of Engineering students only or with permission of department. Credit will only be granted for BIOE658A or BIOE689X. This course focuses on bioengineering applications of additive manufacturing. Such applications are unique in both bioprinting materials and in cell incorporation.

0101	Hesam Babahosseini Th 4:00pm - 6:45pm	Seats (Total: 15) AJC 2132
BI01	Hesam Babahosseini Class time/details on ELMs	Seats (Total: 15) ONLINE

BIOE658N **Special Topics in Bioengineering (M.Eng.); Advanced Experiences in Bioeengineering**

(Perm req)

Credits: 3 Grading Method: Regular, Audit, Sat-Fail

Special topics in Bioengineering.

For Master of Engineering students only; or with permission of department. Students that have already identified professional contacts that will support them during this experiential co-op opportunity will need to apply for this course directly through the instructor.

0101	Angela Jones Contact instructor or department for details.	Seats (Total: 5)

BIOE658P **Special Topics in Bioengineering (M.Eng.); Physiology for Bioengineers**

(Perm req)

Credits: 3 Grading Method: Regular, Audit, Sat-Fail

Special topics in Bioengineering.

For Mastering of Engineering students only or with permission of department. Credit will only be granted for BIOE658P or BIOE689M. Bioengineering-based designs of biomaterials, biomedical devices, imaging and drug delivery agents, tissue engineering, and prosthesis (among others), offer the opportunity to improve health care. This course is aimed at providing biological knowledge to lead bioengineering designs on the basis of biocompatibility and to provide tools to assess their patho-physiological impact in biological systems.

0101	Jennifer Donovan Th 8:00am - 10:45am	Seats (Total: 15) CHE 2136
BI01	Jennifer Donovan Class time/details on ELMs	Seats (Total: 15) ONLINE

BIOE658Y **Special Topics in Bioengineering (M.Eng.); Applications of Tissue Engineering**

(Perm req)

Credits: 3 Grading Method: Regular, Sat-Fail

Special topics in Bioengineering.

Restriction: For Master of Engineering students only; or permission of department. Credit only granted for: BIOE689Y, BIOE658Y, BIOE611, or BIOE411.

0101	Martha Wang Th 12:30pm - 3:00pm	Seats (Total: 15) AJC 2134
BI01	Martha Wang Class time/details on ELMs	Seats (Total: 15) ONLINE

BIOE689 **Special Topics in Bioengineering**

(Perm req)

Credits: 1-3 Grading Method: Regular, Sat-Fail

Research Oriented Individual Instruction course.

Contact department for information to register for this course.

BIOE689A **Special Topics in Bioengineering; Engineering Approaches to Photomedicine**

(Perm req)

Credits: 3 Grading Method: Regular, Sat-Fail

Research Oriented Individual Instruction course.

Credit only granted for BIOE489Q or BIOL689A. Students are introduced to the fundamentals of photophysics, photochemistry, and photobiology. Engineering of selective photosensitizers, optically active nanomedicine and alternative light sources for photodynamic therapy, photothermal therapy, and imaging will be covered. Other light-based therapies, including laser surgery, low-level light therapy, and light-activated tissue repair and regeneration, will also be featured. The course will briefly cover radiation, magnetic, and ultrasound-based technologies to highlight other extrinsic activation mechanisms for drug delivery and phototherapy. Students will have the opportunity to review and present research articles on these emerging phototherapies and participate in lab experiments to gain a greater awareness of current advancements and refine skills in literature review.

0101	Huang Chiao Huang MWF 3:00pm - 3:50pm	Seats (Total: 10) AJC 2119

BIOE689J **Special Topics in Bioengineering; Advanced Stem Cell Engineering**

(Perm req)

Credits: 3 Grading Method: Regular, Sat-Fail

Research Oriented Individual Instruction course.

Restriction: Permission of the Fischell Department of Bioengineering. Provides an introduction to the role of stem cells in tissue growth and development, and the engineering of stem cells and their environments for regenerative medicine applications, as well as disease modeling. Topics covered include basic stem cell biology and mechanobiology; experimental methods for growing, differentiating, studying, and characterizing stem cells; stem cell integration into engineered microenvironments (e.g., tissue scaffolds and biomaterials, organ-on-chip devices, 3D-printed biomaterials); stem cell engineering in clinical applications and disease models; and ethical, commercialization, and regulatory issues inthe field of stem cell engineering.

0101	Kimberly Stroka	Seats (Total: 9)
	TuTh 11:00am - 12:15pm	IRB 2207

BIOE689R **Special Topics in Bioengineering; Biopolymers**

(Perm req)

Credits: 3 Grading Method: Regular, Sat-Fail

Research Oriented Individual Instruction course.

Restriction: Permission of the Fischell Department of Bioengineering. Overview of the physicochemical principles of polymers with an emphasis on polymers found in biological systems and those exploited for medical applications. Concepts to be covered include polymer physics, rheology, macromolecular interactions, biopolymer networks (i.e. hydrogels, biomaterial scaffolds) and experimental methods. Modern topics related to polymers in bioengineering will be discussed throughout the course with frequent references to recent literature.

0101	Gregg Duncan	Seats (Total: 20)
	TuTh 3:30pm - 4:45pm	AJC 2134

BIOE799 **Master's Thesis Research**

(Perm req)

Credits: 1-6 Grading Method: Sat-Fail

Contact department for information to register for this course.

BIOE898 **Pre-Candidacy Research**

Credits: 1-8 Grading Method: Regular, Sat-Fail

Contact department for information to register for this course.

BIOE899 **Doctoral Dissertation Research**

(Perm req)

Credits: 6 Grading Method: Sat-Fail

Contact department for information to register for this course.

BIOL Biology Spring 2020

BIOL600 **Ethics in Scientific Research**

Credits: 2 Grading Method: Regular, Sat-Fail

Restriction: Must have completed at least one year of graduate study. Credit only granted for: BIOL600 or ZOOL600. Formerly: ZOOL600.

Issues of sceintific integrity with emphasis on investigators in the laboratory sciences, including mentoring, scientific record keeping, authorship and peer review, ownership of data, use of animals and humans in research, and conflict of interest.

Cross-listed with NACS600. Credit granted for BIOL600 or NACS600.

0101	Rochelle Newman	Seats (Total: 20)
	M 2:30pm - 4:10pm	LEF 1171

BIOL608Q **Biology Seminar; Readings in Neurophysiology**

(Perm req)

Credits: 1 Grading Method: Regular, Sat-Fail

0101	Elizabeth Quinlan	Seats (Total: 10)
	Contact instructor or department for details.	

BIOL608T **Biology Seminar; Evolutionary Genetics**

Credits: 2 Grading Method: Regular, Sat-Fail

0101	Carlos Machado	Seats (Total: 15)
	F 10:00am - 12:00pm	BPS 1230

BIOL608V **Biology Seminar; Current Topics in Auditory Cortex Processing**

Credits: 2 Grading Method: Regular, Sat-Fail

0101	Reid Compton, Patrick Kanold	Seats (Total: 10)
	F 9:00am - 11:00am	Location: TBA

BIOL608W **Biology Seminar; Neural Coding**

Credits: 2 Grading Method: Regular, Sat-Fail

0101	Daniel Butts W 4:00pm - 6:00pm	Seats (Total: 15) BPS 1230

BIOL609 **Special Problems in Biology**

Credits: 1-6 Grading Method: Regular, Sat-Fail

One seminar per week for each subject selected: A-Cell Biology; B-Developmental Biology; C-Estuarine and Marine Biology; D-Genetics; E-Parasitology; F-Physiology; G-Systematics and Evolutionary Biology; I-Behavior; J-General; K-Endocrinology; L-Ecology.

Contact department for information to register for this course.

BIOL615 **Developmental Genetics**

Credits: 3 Grading Method: Regular, Sat-Fail

Prerequisite: Must have completed courses in molecular genetics and developmental or cell biology; or permission of instructor. Credit only granted for: BIOL615 or ZOOL642. Formerly: ZOOL642.

Differential gene function and its regulation in developing systems. Genes and the analysis of developmental processes.

0101	Eric Haag TuTh 9:30am - 10:45am	Seats (Total: 10) BPS 2249

BIOL705 **Statistics & Modeling for Biologists**

Credits: 3 Grading Method: Regular, Audit, Sat-Fail

Restriction: Must be in the Biological Sciences Graduate program; or permission of Biology Department. Credit only granted for: BIOL705 or BIOL709F. Formerly: BIOL709F.

An overview of essential probability and statistics using R with a focus on biological problems. Topics include: parameter estimation (likelihood, Bayesian), confidence intervals and hypothesis testing, multiple testing, experimental design and power analysis, and resampling-based measures of uncertainty. Practical use of computers will be emphasized.

0101	Philip Johnson Tu 11:00am - 12:15pm Th 11:00am - 12:15pm	Seats (Total: 40) BPS 1236 BPS 1208

BIOL708B **Advanced Topics in Biology; Animal Behavior**

Credits: 3 Grading Method: Regular, Sat-Fail

Lectures, experimental courses and other special instructions in various zoological subjects.

0101	Gerald Borgia	Seats (Total: 1)	
	MW 1:00pm - 1:50pm	BPS 0283	
	F 12:00pm - 12:50pm	PLS 1119	Discussion

BIOL708E **Advanced Topics in Biology; Diseases of the Nervous System**

Credits: 3 Grading Method: Regular, Sat-Fail

Lectures, experimental courses and other special instructions in various zoological subjects.

0101	Quentin Gaudry	Seats (Total: 8)
	TuTh 2:00pm - 3:15pm	BPS 0283

BIOL708R **Advanced Topics in Biology; Concepts in Plant and Animal Ecology**

Credits: 3 Grading Method: Regular, Sat-Fail

Lectures, experimental courses and other special instructions in various zoological subjects.

0101	Karen Lips	Seats (Total: 5)	
	TuTh 9:30am - 10:45am	BPS 0283	
	W 12:00pm - 12:50pm	BPS 2249	Discussion

BIOL709A **Selected Advanced Topics in Biology; Grant Writing**

Credits: 2 Grading Method: Regular, Audit, Sat-Fail

Lectures, experimental courses and other special instructions in various biological subjects.

Cross-listed with NACS728M. Credit granted for BIOL709A or NACS728M. Instruction in grant-writing skill, introduction to resources, discussions on how to make your grant competitive, and insight into th e review process. The goal will be to have each participant submit an NRSA.

0101	Elizabeth Quinlan	Seats (Total: 14)
	Th 1:00pm - 3:00pm	BRB 3101

BIOL709R **Selected Advanced Topics in Biology; Membranes and Biological Interfaces**

Credits: 3 Grading Method: Regular, Audit, Sat-Fail

Lectures, experimental courses and other special instructions in various biological subjects.

0101	Sergei Sukharev TuTh 3:30pm - 4:45pm	Seats (Total: 7) PLS 1111

BIOL799 **Master's Thesis Research**

Credits: 1-6 Grading Method: Sat-Fail

Contact department for information to register for this course.

BIOL898 **Pre-Candidacy Research**

Credits: 1-8 Grading Method: Regular, Sat-Fail

Contact department for information to register for this course.

BIOL899 **Doctoral Dissertation Research**

(Perm req)

Credits: 6 Grading Method: Sat-Fail

Contact department for information to register for this course.

BIOM Biometrics Spring 2020

BIOM301 **Introduction to Biometrics**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit General Education: FSAR

Prerequisite: MATH113 or MATH115. Credit only granted for: BIOM301, BMGT230, CCJS200, ECON230, ECON321, EDMS451, GEOG306, GEOL351, GVPT422, INST314, JOUR405, PSYC200 or SOCY201.

Descriptive statistics, introduction to probability, sampling, confidence interval estimation, hypothesis testing, simple regression and correlation. Emphasis on simple applications of statistical techniques and interpretation of statistical results.

0101	Christine Hakenkamp TuTh 12:30pm - 1:20pm M 9:00am - 9:50am	Seats (Total: 28) EGR 1202 ANS 0473	Discussion
0102	Christine Hakenkamp TuTh 12:30pm - 1:20pm M 10:00am - 10:50am	Seats (Total: 28) EGR 1202 ANS 0473	Discussion

0103	Christine Hakenkamp TuTh 12:30pm - 1:20pm M 11:00am - 11:50am	Seats (Total: 28) EGR 1202 ANS 0473	Discussion
0104	Christine Hakenkamp TuTh 12:30pm - 1:20pm Tu 8:30am - 9:20am	Seats (Total: 28) EGR 1202 ANS 0473	Discussion
0105	Christine Hakenkamp TuTh 12:30pm - 1:20pm Tu 9:30am - 10:20am	Seats (Total: 28) EGR 1202 ANS 0473	Discussion
0106	Christine Hakenkamp TuTh 12:30pm - 1:20pm Tu 11:00am - 11:50am	Seats (Total: 28) EGR 1202 ANS 0473	Discussion
0107	Christine Hakenkamp TuTh 12:30pm - 1:20pm M 12:00pm - 12:50pm	Seats (Total: 26) EGR 1202 ANS 0473	Discussion
SG91	Christine Hakenkamp MF 10:00am - 10:50am W 10:00am - 10:50am	Seats (Total: 40) BLD4 4321 BLD4 5312	Discussion
	Registration is restricted to Biological Sciences- Shady Grove majors. Permission is required for all other students to enroll in courses at Shady Grove. Please email usgbiosci@umd.edu for permission.		

BIOM688A **Topics in Biometrics; Consulting Experience in Biometrics**

Credits: 1-3 Grading Method: Regular, Audit, Sat-Fail

Advanced topics of current interest in various areas of biometrics. Credit assigned will depend on lecture and/or laboratory time scheduled and organization of the course.

Contact department for information to register for this course.

BIOM688E **Topics in Biometrics; Computational and Statistical Genomics**

Credits: 3 Grading Method: Regular, Audit, Sat-Fail

Advanced topics of current interest in various areas of biometrics. Credit assigned will depend on lecture and/or laboratory time scheduled and organization of the course.

0101	Jiuzhou Song	Seats (Total: 15)
	MW 4:00pm - 5:15pm	ANS 0402

BIOM698 **Special Problems in Biometrics**

Credits: 1-3 Grading Method: Regular, Audit, Sat-Fail

Individual study of a particular topic in biostatistics or biomathematics.

Contact department for information to register for this course.

BIPH Biophysics Spring 2020

BIPH698L **Biophysics Seminar; Biophysics**

Credits: 1 Grading Method: Regular, Audit, Sat-Fail

0101	Arpita Upadhyaya	Seats (Total: 20)
	M 4:00pm - 5:30pm	CHM 0112

BIPH699 **Research in Biophysics**

(Perm req)

Credits: 2 Grading Method: Regular, Sat-Fail

Supervised research in biophysics laboratories. Rotations through several laboratories prior to a choice of laboratory for a research assistantship.

Contact department for information to register for this course.

BIPH898 **Pre-Candidacy Research**

(Perm req)

Credits: 1-8 Grading Method: Regular, Sat-Fail

Contact department for information to register for this course.

BIPH899 **Doctoral Dissertation Research**

(Perm req)

Credits: 6 Grading Method: Sat-Fail

Contact department for information to register for this course.

BISI Biological Sciences Spring 2020

BISI712 **Responsible Conduct of Research for Biologists**

Credits: 1 Grading Method: Regular, Sat-Fail

Credit only granted for: BISI712, BISI688B, or CBMG688B. Formerly: BISI688B and CBMG688B.

An exploration of the ethical dimensions associated with the responsible conduct of scientific research focusing on providing students with practical insights into the existing norms and expectations of working scientists.

0202	Charles Delwiche	Seats (Total: 10)
	Meets March 18, 2020 - May 12, 2020	
	M 4:00pm - 6:00pm	BRB 3101

BISI799 **Master's Thesis Research**

(Perm req)

Credits: 1-6 Grading Method: Sat-Fail

Contact department for information to register for this course.

BISI898 **Pre-Candidacy Research**

(Perm req)

Credits: 1-8 Grading Method: Regular, Sat-Fail

Restriction: Must be in Biological Sciences (Doctoral) program.

Contact department for information to register for this course.

BISI899 **Doctoral Dissertation Research**

(Perm req)

Credits: 6 Grading Method: Sat-Fail

Contact department for information to register for this course.

BMGT Business and Management Spring 2020

BMGT099 **Internship Seminar**

(Perm req)

Credits: 0 Grading Method: Sat-Fail

Complements students' supervised work experiences. Involves exploring career options, developing professional work skills, examining the relationship between internship and academic coursework. Course may be repeated.

Contact department for information to register for this course.

BMGT110 **Introduction to the Business Value Chain**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit CORE: IE

Students are provided with an introduction to the business value chain with an emphasis on inter-organizational and intra-organizational coordination of core business processes. Emphasis is on cross-functional integration and the efficient and effective management of core processes with an emphasis on marketing, operations and supply chain management.

0101	Jeff Miller MW 12:30pm - 1:45pm	Seats (Total: 250) VMH 1212

BMGT110S **Introduction to the Business Value Chain**

Credits: 3 | Grading Method: Regular, Pass-Fail | CORE: IE

Restricted to College Park Scholars in Business, Society, and the Economy.

0101	Jeff Miller TuTh 3:30pm - 4:45pm	Seats (Total: 40) SQH 1105
0201	Jeff Miller TuTh 2:00pm - 3:15pm	Seats (Total: 40) VMH 1207

BMGT190H **Introduction to Design and Quality**

Credits: 4 | Grading Method: Regular, Pass-Fail | General Education: DSSP

Restriction: Must be in the Quest program. Cross-listed with ENES190. Credit only granted for: BMGT190 or ENES190.

QUEST students learn and apply design practices to design new products and services. Working in multidisciplinary teams, students use quality and process improvement methods to identify, analyze, and recommend solutions to real-world problems.

Restricted to QUEST program students. Cross-listed with ENES190H. Credit granted for ENES190H or BMGT190H.

0101	Pamela Armstrong TuTh 12:30pm - 1:45pm Tu 6:00pm - 7:50pm	Seats (Total: 45) HJP 2242 VMH 1418	 Discussion

BMGT198B **Special Topics in Business and Management; The Intentional Self**

Credits: 1 | Grading Method: Regular, Pass-Fail

Introductory special topics in business and management.

0101	Rajshree Agarwal, Sarah Wolek W 2:00pm - 2:50pm	Seats (Total: 30) VMH 1336	

BMGT210 **Foundations of Accounting for Non Business Majors**

Credits: 3 Grading Method: Regular, Pass-Fail

Restriction: Must not have completed BMGT221; and must not be in a major in the R.H. Smith School of Business. Credit only granted for: (BMGT220 and BMGT221) or BMGT210. Additional information: Does not apply to a Smith School degree. Students pursuing a Smith School minor who have completed both BMGT220 and BMGT221 may substitute these courses for BMGT210. Credit will not be given for both BMGT210 and the combination of BMGT220 and BMGT221.

Provides an understanding of the common statements that report a company's profitability and financial health, and are useful to all economic agents who are engaged with the firm. Students will also recognize and understand managerial accounting as a system for accumulating and modeling information to support decision-making.

Restricted to General Business Minors.

0101	Eugene Cantor MW 3:30pm - 4:45pm F 9:00am - 9:50am	Seats (Total: 30) HJP 2242 AJC 2119	 Discussion
0102	Eugene Cantor MW 3:30pm - 4:45pm F 10:00am - 10:50am	Seats (Total: 30) HJP 2242 AJC 2134	 Discussion

BMGT220 **Principles of Accounting I**

Credits: 3 Grading Method: Regular, Pass-Fail

Basic theory and techniques of contemporary financial accounting. Includes the accounting cycle and the preparation of financial statements for single owner and partnership forms of business organizations operating as service companies or merchandisers.

Restricted to students with 24 credit hours completed. Where a BMGT exam conflicts with another regularly scheduled class, the student will be provided a makeup exam.

0101	Progyan Basu MW 2:00pm - 3:15pm F 10:00am - 10:50am	Seats (Total: 38) VMH 1212 VMH 1202	 Discussion

0102	Progyan Basu MW 2:00pm - 3:15pm F 11:00am - 11:50am	Seats (Total: 38) VMH 1212 VMH 1202	Discussion
0103	Progyan Basu MW 2:00pm - 3:15pm F 12:00pm - 12:50pm	Seats (Total: 38) VMH 1212 VMH 1202	Discussion
0104	Progyan Basu MW 2:00pm - 3:15pm F 1:00pm - 1:50pm	Seats (Total: 38) VMH 1212 VMH 1202	Discussion
0105	Progyan Basu MW 2:00pm - 3:15pm F 2:00pm - 2:50pm	Seats (Total: 38) VMH 1212 VMH 1202	Discussion
0201	Progyan Basu MW 11:00am - 12:15pm F 10:00am - 10:50am	Seats (Total: 38) VMH 1212 VMH 1206	Discussion
0202	Progyan Basu MW 11:00am - 12:15pm F 11:00am - 11:50am	Seats (Total: 38) VMH 1212 VMH 1206	Discussion
0203	Progyan Basu MW 11:00am - 12:15pm F 12:00pm - 12:50pm	Seats (Total: 38) VMH 1212 VMH 1206	Discussion
0204	Progyan Basu MW 11:00am - 12:15pm F 1:00pm - 1:50pm	Seats (Total: 38) VMH 1212 VMH 1206	Discussion
0205	Progyan Basu MW 11:00am - 12:15pm F 2:00pm - 2:50pm	Seats (Total: 38) VMH 1212 VMH 1206	Discussion

BMGT220H **Principles of Accounting I**

Credits: 3

Grading Method: Regular, Pass-Fail

Basic theory and techniques of contemporary financial accounting. Includes the accounting cycle and the preparation of financial statements for single owner and partnership forms of business organizations operating as service companies or merchandisers.

Restricted to Honors students with 24 hours completed.

0101	Emanuel Zur TuTh 9:30am - 10:45am	Seats (Total: 35) VMH 1518	

BMGT221 **Principles of Accounting II**

Credits: 3 Grading Method: Regular, Pass-Fail

Prerequisite: BMGT220.

Basic theory and techniques of accounting for managerial decision making. Involves the introduction of the corporation and manufacturing operations. Includes cost-volume-profit analysis and capital budgeting. Introduces the topics of income taxation and international accounting.

Restriction: Restricted to students with 24 credit hours completed. Where a BMGT exam conflicts with another regularly scheduled class, the student will be provided a makeup exam.

0101	Gary Bulmash TuTh 9:30am - 10:45am F 10:00am - 10:50am	Seats (Total: 35) VMH 1524 VMH 1303	 Discussion
0102	Gary Bulmash TuTh 9:30am - 10:45am F 11:00am - 11:50am	Seats (Total: 35) VMH 1524 VMH 1303	 Discussion
0103	Gary Bulmash TuTh 9:30am - 10:45am F 12:00pm - 12:50pm	Seats (Total: 35) VMH 1524 VMH 1303	 Discussion
0104	Gary Bulmash TuTh 9:30am - 10:45am F 1:00pm - 1:50pm	Seats (Total: 35) VMH 1524 VMH 1303	 Discussion
0201	Gary Bulmash TuTh 2:00pm - 3:15pm F 10:00am - 10:50am	Seats (Total: 35) VMH 1524 VMH 1307	 Discussion

0202	Gary Bulmash TuTh 2:00pm - 3:15pm F 11:00am - 11:50am	Seats (Total: 35) VMH 1524 VMH 1307	 Discussion
0203	Gary Bulmash TuTh 2:00pm - 3:15pm F 12:00pm - 12:50pm	Seats (Total: 35) VMH 1524 VMH 1307	 Discussion
0204	Gary Bulmash TuTh 2:00pm - 3:15pm F 1:00pm - 1:50pm	Seats (Total: 35) VMH 1524 VMH 1307	 Discussion
0301	Gary Bulmash TuTh 3:30pm - 4:45pm F 10:00am - 10:50am	Seats (Total: 35) VMH 1524 VMH 1336	 Discussion
0302	Gary Bulmash TuTh 3:30pm - 4:45pm F 11:00am - 11:50am	Seats (Total: 35) VMH 1524 VMH 1336	 Discussion
0303	Gary Bulmash TuTh 3:30pm - 4:45pm F 12:00pm - 12:50pm	Seats (Total: 35) VMH 1524 VMH 1336	 Discussion
0304	Gary Bulmash TuTh 3:30pm - 4:45pm F 1:00pm - 1:50pm	Seats (Total: 35) VMH 1524 VMH 1336	 Discussion

BMGT221H **Principles of Accounting II**

Credits: 3 Grading Method: Regular, Pass-Fail

Prerequisite: BMGT220.

Basic theory and techniques of accounting for managerial decision making. Involves the introduction of the corporation and manufacturing operations. Includes cost-volume-profit analysis and capital budgeting. Introduces the topics of income taxation and international accounting.

Restricted to Honors students with 24 hours completed. Where a BMGT exam conflicts with another regularly scheduled class, the student will be provided a makeup exam.

0101	Martin Loeb TuTh 3:30pm - 4:45pm	Seats (Total: 27) VMH 1518	

BMGT230 **Business Statistics**

Credits: 3 | Grading Method: Regular, Pass-Fail | General Education: FSAR

Prerequisite: MATH113 or MATH115; or must have math eligibility of MATH120 or higher. Restriction: Must not have completed ENCE302, ENME392, STAT400, BMGT231, or ENEE324. Credit only granted for: BIOM301, BMGT230, CCJS200, ECON230, ECON321, EDMS451, GEOG306, GEOL351, GVPT422, INST314, JOUR405, PSYC200 or SOCY201. (These courses do not necessarily meet the same major requirements-check with your advisor to see which of these courses will count for your major).

Introductory course in probabilistic and statistical concepts including descriptive statistics, set-theoretic development of probability, the properties of discrete and continuous random variables, sampling theory, estimation, hypothesis testing, regression and decision theory and the application of these concepts to problem solving in business and management.

Where a BMGT exam conflicts with a regularly scheduled class, the student will be provided with a makeup exam.

0102	Erich Studer-Ellis MW 9:30am - 10:45am F 9:00am - 9:50am	Seats (Total: 35) VMH 1524 VMH 1411	 Discussion
0103	Erich Studer-Ellis MW 9:30am - 10:45am F 10:00am - 10:50am	Seats (Total: 25) VMH 1524 VMH 1411	 Discussion
0104	Erich Studer-Ellis MW 9:30am - 10:45am F 11:00am - 11:50am	Seats (Total: 35) VMH 1524 VMH 1411	 Discussion
0105	Erich Studer-Ellis MW 9:30am - 10:45am F 12:00pm - 12:50pm	Seats (Total: 28) VMH 1524 VMH 1411	 Discussion
0106	Erich Studer-Ellis MW 9:30am - 10:45am F 1:00pm - 1:50pm	Seats (Total: 35) VMH 1524 VMH 1411	 Discussion

0107	Erich Studer-Ellis MW 9:30am - 10:45am F 2:00pm - 2:50pm	Seats (Total: 35) VMH 1524 VMH 1411	Discussion
0202	Erich Studer-Ellis MW 11:00am - 12:15pm F 9:00am - 9:50am	Seats (Total: 32) VMH 1524 VMH 1314	Discussion
0203	Erich Studer-Ellis MW 11:00am - 12:15pm F 10:00am - 10:50am	Seats (Total: 35) VMH 1524 VMH 1314	Discussion
0204	Erich Studer-Ellis MW 11:00am - 12:15pm F 11:00am - 11:50am	Seats (Total: 23) VMH 1524 VMH 1314	Discussion
0205	Erich Studer-Ellis MW 11:00am - 12:15pm F 12:00pm - 12:50pm	Seats (Total: 35) VMH 1524 VMH 1314	Discussion
0206	Erich Studer-Ellis MW 11:00am - 12:15pm F 1:00pm - 1:50pm	Seats (Total: 25) VMH 1524 VMH 1314	Discussion
0207	Erich Studer-Ellis MW 11:00am - 12:15pm F 2:00pm - 2:50pm	Seats (Total: 35) VMH 1524 VMH 1314	Discussion
0302	Erich Studer-Ellis MW 12:30pm - 1:45pm F 9:00am - 9:50am	Seats (Total: 35) VMH 1524 VMH 1418	Discussion
0303	Erich Studer-Ellis MW 12:30pm - 1:45pm F 10:00am - 10:50am	Seats (Total: 24) VMH 1524 VMH 1418	Discussion
0304	Erich Studer-Ellis MW 12:30pm - 1:45pm F 11:00am - 11:50am	Seats (Total: 23) VMH 1524 VMH 1418	Discussion

0305	Erich Studer-Ellis MW 12:30pm - 1:45pm F 12:00pm - 12:50pm	Seats (Total: 24) VMH 1524 VMH 1418	Discussion
0306	Erich Studer-Ellis MW 12:30pm - 1:45pm F 1:00pm - 1:50pm	Seats (Total: 35) VMH 1524 VMH 1418	Discussion
0307	Erich Studer-Ellis MW 12:30pm - 1:45pm F 2:00pm - 2:50pm	Seats (Total: 35) VMH 1524 VMH 1418	Discussion

BMGT230B **Business Statistics**

Credits: 3 | Grading Method: Regular, Pass-Fail | General Education: FSAR

Prerequisite: MATH113 or MATH115; or must have math eligibility of MATH120 or higher. Restriction: Must not have completed ENCE302, ENME392, STAT400, BMGT231, or ENEE324. Credit only granted for: BIOM301, BMGT230, CCJS200, ECON230, ECON321, EDMS451, GEOG306, GEOL351, GVPT422, INST314, JOUR405, PSYC200 or SOCY201. (These courses do not necessarily meet the same major requirements-check with your advisor to see which of these courses will count for your major).

Introductory course in probabilistic and statistical concepts including descriptive statistics, set-theoretic development of probability, the properties of discrete and continuous random variables, sampling theory, estimation, hypothesis testing, regression and decision theory and the application of these concepts to problem solving in business and management.

Restricted to BMGT majors. Where a BMGT exam conflicts with a regularly scheduled class, the student will be provided a makeup exam.

0103	Erich Studer-Ellis MW 9:30am - 10:45am F 10:00am - 10:50am	Seats (Total: 10) VMH 1524 VMH 1411	Discussion
0105	Erich Studer-Ellis MW 9:30am - 10:45am F 12:00pm - 12:50pm	Seats (Total: 7) VMH 1524 VMH 1411	Discussion
0202	Erich Studer-Ellis MW 11:00am - 12:15pm F 9:00am - 9:50am	Seats (Total: 3) VMH 1524 VMH 1314	Discussion

0204	Erich Studer-Ellis MW 11:00am - 12:15pm F 11:00am - 11:50am	Seats (Total: 12) VMH 1524 VMH 1314	Discussion
0206	Erich Studer-Ellis MW 11:00am - 12:15pm F 1:00pm - 1:50pm	Seats (Total: 10) VMH 1524 VMH 1314	Discussion
0303	Erich Studer-Ellis MW 12:30pm - 1:45pm F 10:00am - 10:50am	Seats (Total: 11) VMH 1524 VMH 1418	Discussion
0304	Erich Studer-Ellis MW 12:30pm - 1:45pm F 11:00am - 11:50am	Seats (Total: 12) VMH 1524 VMH 1418	Discussion
0305	Erich Studer-Ellis MW 12:30pm - 1:45pm F 12:00pm - 12:50pm	Seats (Total: 11) VMH 1524 VMH 1418	Discussion

BMGT289A **Social Enterprise: Changing the World through Innovation and Transformative Action**

Credits: 3 | Grading Method: Regular, Pass-Fail, Audit | CORE: SB | General Education: DSSP, SCIS

In this course, students will hear from real-life social entrepreneurs, explore current day social issues of sustainability, climate change, leadership, disruptive innovations, and create or blueprint business plans to generate positive social change. This class will focus on innovative thinking skills, personal narratives, and social interaction strategies and plans.

0101	Le-Marie Thompson W 5:00pm - 7:40pm	Seats (Total: 65) TYD 2109
0201	Le-Marie Thompson M 5:00pm - 7:40pm	Seats (Total: 65) TYD 2109

BMGT289B **How Do Innovators Think?**

Credits: 3 | Grading Method: Regular, Pass-Fail, Audit | General Education: DSSP, SCIS

In this course, students will learn about: a) the innovation process and the role of the individual in generating innovations and b) the attributes, habits, and skills of individuals who have successfully started innovative new businesses or significantly added value to an existing company.

Credit only granted for BMGT289B or HONR289P. Course will meet 6 times on Monday evenings for assessments and guest speaker presentations.

0101	Mark Wellman W 2:00pm - 3:15pm M 6:30pm - 9:15pm	Seats (Total: 65) CCC 1100 VMH 1212
0201	Mark Wellman M 3:30pm - 4:45pm M 6:30pm - 9:15pm	Seats (Total: 65) VMH 1212 VMH 1212

BMGT289D **Frauds, Scams, and Thefts: What, How and Why?**

Credits: 3 | Grading Method: Regular, Pass-Fail | General Education: DSSP, SCIS

The primary objective of this course is for students to gain a conceptual understanding of how fraud occurs, how it can be prevented, and how fraud can be detected through practical application of skills and tools. This course provides general background relating to fraud (e.g. history, prevalence, psychology), and it delves into the myriad types of fraud, scams and theft. This course also examines the trends in fraud detection and investigation; and introduces and explores with students the constant tension between public order and civil liberties in white collar crime, forensics, and hacking.

0101	Samuel Handwerger MW 5:00pm - 6:15pm	Seats (Total: 63) SQH 1119

BMGT289E **Entrepreneurial Thinking for Non-Business Majors: How Not to Miss Great Opportunities Your Life Throws at You**

Credits: 3 | Grading Method: Regular, Pass-Fail | CORE: IE | General Education: DSSP, SCIS

In this course, students learn how to analyze the world around them and then notice and define new trends, emerging problems, impending gaps, and how to turn these into exciting opportunities by providing creative solutions. Students will have a chance to not only sharpen their critical thinking skills, but also learn how to take initiative, develop a working solution, identify and resolve conflicts, and be confident and persistent, yet flexible enough to respond to changes. Student teams identify a compelling problem in present day life and then propose a creative solution taking into account possible difficulties in implementation. In addition, students will also be given problems on a much smaller scale and asked to create and present a workable solution. Students will be exposed to how a visionary's mind works and the creative solution process. In addition, students will also learn how entrepreneurial thinking can improve their day-to-day life.

0101	Oliver Schlake	Seats (Total: 65)
	MW 3:30pm - 4:45pm	TYD 2109

BMGT289I **Why Good Managers Make Bad Decisions**

Credits: 3 | Grading Method: Regular, Pass-Fail, Audit | CORE: MS | General Education: DSSP, SCIS

This course provides an overview of the concepts, approaches, and vocabulary of evidence-based management (EBM) and provides an understanding of how experts in many disciplines can employ evidenced based decision making. EBM is an emerging movement in business to explicitly use the current best information in management decision making with special emphasis on relevant scientific findings and unbiased organizational facts. The course stresses how individuals practicing EBM learn how to rethink their approaches to data and knowledge in order to make more effective decisions.

0101	Jeff Miller	Seats (Total: 240)
	MW 3:30pm - 4:45pm	VMH 1524

BMGT289M **European Debt Crisis: More Integration or Withering of a Dream?**

Credits: 3 | Grading Method: Regular, Pass-Fail | General Education: DSSP, SCIS

This course explores the developments and events that led to the formation of the Economic and Monetary Union (EMU) and analyzes the causes for the eruption of the debt crisis. In addition, the course evaluates the policy steps taken to stabilize the crisis (monetary, banking, fiscal and institutional measures), and it discuss policy options to overcome in a lasting manner the design flaws and strengthen the governance of the EMU, so as to improve its overall economic growth performance.

0101	Ulrich Hewer	Seats (Total: 63)
	Tu 5:00pm - 7:40pm	SQH 1120

BMGT299B **Student Initiated Special Topics; Applied Cloud Computing in Information Systems**

Credits: 1 | Grading Method: Sat-Fail

Student initiated special topics in business and management.

Prerequisite: BMGT301. Corequisite: BMGT302.

0101	Gorkem Ozer, Louiqa Raschid	Seats (Total: 30)
	M 10:00am - 10:50am	VMH 1314

BMGT301 **Introduction to Information Systems**

Credits: 3

Grading Method: Regular, Pass-Fail

Restriction: Must be in a major in BMGT-Robert H. Smith School of Business. Additional information: CMSC majors will not receive credit for this course towards their upper level concentration in their CMSC major. All BMGT majors, including students who are a double major in CMCS, must complete BMGT301 for their BMGT degree.

Comprehensive overview of information systems (IS), which explores the strategic and tactical nature of IS. The basic concepts in analyzing and designing information systems for business applications will be presented. Aspects of data management such as databases, data warehousing, data analysis, and data mining will be analyzed, and the basics of web page and web site design will be outlined. Students will also be introduced to modern information systems infrastructure such as telecommunications, networks, and information systems security. Knowledge of Excel or a similar spreadsheet tool.

0101	Zeinab Karake TuTh 11:00am - 12:15pm *Restricted to BMGT majors with 53 credit hours completed.*	Seats (Total: 65) VMH 1412
0201	Zeinab Karake TuTh 3:30pm - 4:45pm *Restricted to BMGT majors with 53 credit hours completed.*	Seats (Total: 65) VMH 1412
0301	Zeinab Karake TuTh 12:30pm - 1:45pm *Restricted to BMGT majors with 53 credit hours completed.*	Seats (Total: 65) VMH 1412
0401	Zeinab Karake TuTh 9:30am - 10:45am *Restricted to BMGT majors with 53 credit hours completed.*	Seats (Total: 65) VMH 1412
0501	Zeinab Karake MW 11:00am - 12:15pm *Restricted to BMGT majors with 53 credit hours completed.*	Seats (Total: 60) VMH 1520
SG92	Paul Shapiro TuTh 11:00am - 12:15pm *Restricted to Junior BMGT-Shady Grove students majoring in Accounting Other students may request enrollment on a space available basis. UMCP undergraduate BMGT students are not eligible to enroll at Shady Grove.*	Seats (Total: 50) BLD2 3032

SG93	Paul Shapiro TuTh 12:30pm - 1:45pm	Seats (Total: 50) BLD2 3032
	Restricted to Junior BMGT-Shady Grove students majoring in Marketing and Management. Other students may request enrollment on a space available basis. UMCP undergraduate BMGT students are not eligible to enroll at Shady Grove.	

BMGT301F **Introduction to Information Systems**

Credits: 3 Grading Method: Regular, Pass-Fail

Restriction: Must be in a major in BMGT-Robert H. Smith School of Business. Additional information: CMSC majors will not receive credit for this course towards their upper level concentration in their CMSC major. All BMGT majors, including students who are a double major in CMCS, must complete BMGT301 for their BMGT degree.

Comprehensive overview of information systems (IS), which explores the strategic and tactical nature of IS. The basic concepts in analyzing and designing information systems for business applications will be presented. Aspects of data management such as databases, data warehousing, data analysis, and data mining will be analyzed, and the basics of web page and web site design will be outlined. Students will also be introduced to modern information systems infrastructure such as telecommunications, networks, and information systems security. Knowledge of Excel or a similar spreadsheet tool.

Restricted to second year students in the Smith School's Smith Start Program (FPFF).

FP01	Zeinab Karake MW 9:30am - 10:45am	Seats (Total: 60) VMH 1520
FP02	Zeinab Karake MW 12:30pm - 1:45pm	Seats (Total: 60) VMH 1520

BMGT302 **Designing Applications for Business Analytics**

Credits: 3 Grading Method: Regular, Pass-Fail

Prerequisite: BMGT301; or permission of BMGT-Robert H. Smith School of Business. Restriction: Must be in a major in BMGT-Robert H. Smith School of Business; and must not be in Computer Science program.

Provides an introduction to structured programming with business applications. Programming logic and data structures are introduced. The course especially emphasizes hands-on exercises using Excel macros and Visual Basic for Applications (VBA), and covers business functions and analytics.

Restricted to BMGT majors with 53 credit hours completed. Not open to Computer Science Majors.

0101	Woei-Jyh Lee TuTh 9:30am - 10:45am	Seats (Total: 30) VMH 2203
0201	Woei-Jyh Lee MW 9:30am - 10:45am	Seats (Total: 30) VMH 2203
0301	Woei-Jyh Lee TuTh 11:00am - 12:15pm	Seats (Total: 30) VMH 2203
0401	Woei-Jyh Lee MW 5:00pm - 6:15pm	Seats (Total: 30) VMH 2203
0501	Woei-Jyh Lee MW 3:30pm - 4:45pm	Seats (Total: 30) VMH 2203

BMGT310 Intermediate Accounting I

Credits: 3 Grading Method: Regular, Pass-Fail

Prerequisite: BMGT221.

Comprehensive analysis of financial accounting topics related to financial statement preparation and external reporting.

0101	Mary Keim TuTh 2:00pm - 3:15pm *Restricted to Accounting and Finance majors with 53 credit hours comple ted.*	Seats (Total: 35) VMH 1303
0201	Mary Keim TuTh 12:30pm - 1:45pm *Restricted to Accounting and Finance majors with 53 credit hours comple ted.*	Seats (Total: 35) VMH 1314
SG91	Samuel Handwerger MW 2:00pm - 3:15pm *Restricted to BMGT-Shady Grove students majoring in Accounting. Other students may request enrollment on a space available basis. UMCP undergraduate BMGT students are not eligible to enroll at Shady Grove.*	Seats (Total: 45) BLD2 3052

BMGT311 Intermediate Accounting II

Credits: 3 Grading Method: Regular, Pass-Fail

Prerequisite: BMGT310.

Continuation of BMGT310.

0101	Michael Finch MW 11:00am - 12:15pm *Restricted to Accounting majors with 60 credit hours completed.*	Seats (Total: 30) VMH 1314
0201	Oliver Kim MW 12:30pm - 1:45pm *Restricted to Accounting majors with 60 credit hours completed.*	Seats (Total: 30) VMH 1314
0301	Oliver Kim MW 2:00pm - 3:15pm *Restricted to Accounting majors with 60 credit hours completed.*	Seats (Total: 30) VMH 1415
SG91	Stephen Brown MW 9:30am - 10:45am *Restricted to Junior BMGT-Shady Grove students majoring in Accounting. Other students may request enrollment on a space available basis. UMCP undergraduate BMGT students are not eligible to enroll at Shady Grove.*	Seats (Total: 30) BLD2 1032
SG92	Stephen Brown MW 11:00am - 12:15pm *Restricted to Junior BMGT-Shady Grove students majoring in Accounting. Other students may request enrollment on a space available basis. UMCP undergraduate BMGT students are not eligible to enroll at Shady Grove.*	Seats (Total: 30) BLD2 1032

BMGT313 Financial Statement Analysis

Credits: 3 Grading Method: Regular, Pass-Fail

Prerequisite: BMGT221.

Provides students with the tools to conduct a financial statement analysis, which is part of an overall business analysis. Involves understanding and using the information that financial statements are communicating to users.

Restricted to Finance or Accounting majors with 53 credit hours completed.

0201	Hanna Lee TuTh 3:30pm - 4:45pm	Seats (Total: 45) VMH 1520

BMGT313F **Financial Statement Analysis**

Credits: 3 Grading Method: Regular, Pass-Fail

Prerequisite: BMGT221.

Provides students with the tools to conduct a financial statement analysis, which is part of an overall business analysis. Involves understanding and using the information that financial statements are communicating to users.

Restriction: Restricted to Banking & Private Wealth Management Fellows (FPFS)

FP01	Hanna Lee TuTh 2:00pm - 3:15pm	Seats (Total: 35) VMH 1520

BMGT321 **Managerial Accounting**

Credits: 3 Grading Method: Regular, Pass-Fail

Prerequisite: BMGT221.

A study of the basic concepts of product costing and cost analysis for management planning and control. Emphasis is placed on the role of the accountant in organizational management, analysis of cost behavior, standard cost budgeting, responsibility accounting and relevant costs for decision-making.

Restricted to BMGT majors with 53 credit hours completed.

0101	Michael Finch MW 2:00pm - 3:15pm	Seats (Total: 30) VMH 1206
0301	Michael Finch MW 3:30pm - 4:45pm	Seats (Total: 30) VMH 1418

BMGT323 **Taxation of Individuals**

Credits: 3 Grading Method: Regular, Pass-Fail

Prerequisite: BMGT221.

Federal taxation of individuals focusing on income, exclusions, deductions, depreciation, credits and capital transactions. Property coverage includes the tax consequences of sales and dispositions of investment and business assets. Both tax planning and compliance issues are covered.

0101	Leslie Mostow MW 2:00pm - 3:15pm *Restricted to Accounting majors with 53 credit hours completed.*	Seats (Total: 35) VMH 1335
0201	Samuel Handwerger TuTh 9:30am - 10:45am *Restricted to Accounting majors with 53 credit hours completed.*	Seats (Total: 35) VMH 1311
0301	Leslie Mostow MW 12:30pm - 1:45pm *Restricted to Accounting majors with 53 credit hours completed.*	Seats (Total: 35) VMH 1335
SG91	Alexander Ruygrok MW 9:30am - 10:45am *Restricted to Junior BMGT-Shady Grove students majoring in Accounting. Other students may request enrollment on a space available basis. UMCP undergraduate BMGT students are not eligible to enroll at Shady Grove.*	Seats (Total: 30) BLD2 3012
SG92	Alexander Ruygrok MW 11:00am - 12:15pm *Restricted to Junior BMGT-Shady Grove students majoring in Accounting. Other students may request enrollment on a space available basis. UMCP undergraduate BMGT students are not eligible to enroll at Shady Grove.*	Seats (Total: 30) BLD2 3012

BMGT326 **Accounting Systems**

Credits: 3 Grading Method: Regular, Pass-Fail

Prerequisite: BMGT221; and (BMGT201 or BMGT301).

A study of accounting systems and computer and communications technology.

0101	Lei Zhou TuTh 2:00pm - 3:15pm *Restricted to Accounting majors with 60 credit hours completed.*	Seats (Total: 30) VMH 1518

0201	Ariel Rava MW 5:00pm - 6:15pm *Restricted to Accounting majors with 60 credit hours completed.*	Seats (Total: 30) VMH 1411
0301	Lei Zhou TuTh 12:30pm - 1:45pm *Restricted to Accounting majors with 60 credit hours completed.*	Seats (Total: 30) VMH 1206
SG91	Lei Zhou MW 9:30am - 10:45am *Restricted to Senior BMGT-Shady Grove students majoring in Accounting. Other students may request enrollment on a space available basis. UMCP undergraduate BMGT students are not eligible to enroll at Shady Grove.*	Seats (Total: 35) BLD2 3022
SG92	Lei Zhou MW 11:00am - 12:15pm *Restricted to Senior BMGT-Shady Grove students majoring in Accounting. Other students may request enrollment on a space available basis. UMCP undergraduate BMGT students are not eligible to enroll at Shady Grove.*	Seats (Total: 35) BLD2 3022

BMGT332 **Quantitative Models for Management Decisions**

Credits: 3 Grading Method: Regular, Pass-Fail

Prerequisite: BMGT231 or BMGT230; or students who have taken courses with comparable content may contact the department.

The aim of this course is to introduce management science techniques for informed decision-making that can be applied in spreadsheet models to assist in the decision-analysis process. Models include Linear Programming, Transportation and Assignment problems, network flow models, Integer and non-linear programming, Simulation and Decision Trees.

Restricted to BMGT majors and QUEST program students with 53 credit hours completed.

0101	Kazim Ruhi TuTh 11:00am - 12:15pm	Seats (Total: 45) VMH 1528
0201	Kazim Ruhi TuTh 3:30pm - 4:45pm	Seats (Total: 45) VMH 1528
0301	Kazim Ruhi TuTh 2:00pm - 3:15pm	Seats (Total: 45) VMH 1528

0401	Maria Bardossy TuTh 12:30pm - 1:45pm	Seats (Total: 45) VMH 1333

BMGT340 **Business Finance**

Credits: 3 Grading Method: Regular, Pass-Fail

Prerequisite: BMGT220; and (BMGT231 or BMGT230).

Topics include: the principles and practices involved in the organization, financing and rehabilitation of business enterprises; the various types of securities and their use in raising funds, apportioning income, risk and control; intercorporate relations; and new developments. Emphasis on solution of problems of financial policy faced by management.

Restricted to BMGT majors with 53 credit hours completed. Interested students who don't meet restrictions should review their eligiblity for BMGT340N. Meets in a blended format. Approximately half of the scheduled face-to-face course meetings will be replaced by asynchronous online activities, including video lectures, quizzes, and graded assignments.

0101	Karen Hallows MW 2:00pm - 3:15pm Class time/details on ELMs	Seats (Total: 56) VMH 1520 ONLINE
0201	Karen Hallows MW 3:30pm - 4:45pm Class time/details on ELMs	Seats (Total: 60) VMH 1520 ONLINE
0301	Karen Hallows TuTh 5:00pm - 6:15pm Class time/details on ELMs	Seats (Total: 60) VMH 1303 ONLINE
0401	Michael Padhi MW 9:30am - 10:45am Class time/details on ELMs	Seats (Total: 60) VMH 1528 ONLINE
0501	Karen Hallows TuTh 12:30pm - 1:45pm Class time/details on ELMs	Seats (Total: 60) VMH 1520 ONLINE
0601	Michael Padhi MW 11:00am - 12:15pm Class time/details on ELMs	Seats (Total: 60) VMH 1528 ONLINE

0701	Karen Hallows TuTh 3:30pm - 4:45pm Class time/details on ELMs	Seats (Total: 60) VMH 1303 ONLINE

BMGT340N Business Finance

Credits: 3 Grading Method: Regular, Pass-Fail

Prerequisite: BMGT220; and (BMGT231 or BMGT230).

Topics include: the principles and practices involved in the organization, financing and rehabilitation of business enterprises; the various types of securities and their use in raising funds, apportioning income, risk and control; intercorporate relations; and new developments. Emphasis on solution of problems of financial policy faced by management.

Restricted to Agricultural and Resource Economics majors (0111C) with 53 credit hours completed.

0101	Karen Hallows MW 2:00pm - 3:15pm Class time/details on ELMs	Seats (Total: 4) VMH 1520 ONLINE

BMGT341 Financial Markets

Credits: 3 Grading Method: Regular, Pass-Fail

Prerequisite: Must have completed or be concurrently enrolled in BMGT340. Formerly: BMGT498G.

Shows the interconnectedness of the markets. The role of the Central bank and monetary policy is included in this context. Students develop an understanding of: (i) the determination of interest rates; (ii) financial instruments, markets and institutions; (iii) the impact of monetary policy on institutions; and (iv) how financial innovations create markets.

Restricted to Finance majors with 60 credits completed.

0101	Julie Pavlovsky TuTh 11:00am - 12:15pm	Seats (Total: 45) VMH 1415
0201	Julie Pavlovsky TuTh 2:00pm - 3:15pm	Seats (Total: 45) VMH 1415

BMGT341F Financial Markets

Credits: 3 Grading Method: Regular, Pass-Fail

Prerequisite: Must have completed or be concurrently enrolled in BMGT340. Formerly: BMGT498G.

Shows the interconnectedness of the markets. The role of the Central bank and monetary policy is included in this context. Students develop an understanding of: (i) the determination of interest rates; (ii) financial instruments, markets and institutions; (iii) the impact of monetary policy on institutions; and (iv) how financial innovations create markets.

Restricted to Sophomore Wall Street Fellows. The program code for the restriction is FPAF.

FP01	Julie Pavlovsky TuTh 9:30am - 10:45am	Seats (Total: 38) VMH 1415

BMGT343 **Investments**

Credits: 3 Grading Method: Regular, Pass-Fail

Prerequisite: BMGT340. Credit only granted for: BMGT343 or ECON435. Additional information: This course cannot be used to fulfill any requirements for majors in Economics.

An introduction to financial investments. Topics include: securities and securities markets; investment risks, returns and constraints; portfolio policies; and institutional investment policies.

Restriction: Restricted to Finance majors with 60 credit hours completed

0101	Yueyang Han TuTh 2:00pm - 3:15pm	Seats (Total: 40) VMH 1206
0201	Yueyang Han TuTh 12:30pm - 1:45pm	Seats (Total: 40) VMH 1311
0301	Ryan Guttridge MW 2:00pm - 3:15pm	Seats (Total: 40) VMH 1311
0401	Ryan Guttridge MW 3:30pm - 4:45pm	Seats (Total: 40) VMH 1206
0501	Kenneth Fuller TuTh 9:30am - 10:45am	Seats (Total: 40) VMH 1307

BMGT345 **Foundations of Financial Management for Non Business Majors**

Credits: 3 Grading Method: Regular, Pass-Fail

Prerequisite: BMGT210 or BMGT220. Restriction: Must not have completed BMGT340; and must not be a major in the R.H. Smith School of Business. Credit only granted for: BMGT345 or BMGT340. Additional information: Course does not apply to a Smith School degree. BMGT340 may substitute for BMGT345.

Provides students an overview of financial management. Students will understand how a business allocates financial resources in an uncertain environment to maximize shareholder value. In addition students will learn the following: how to apply accounting principles to corporate finance; how to value assets, projects, companies and investment securities; understand the relationship between risk and return and how it impacts investment and corporate decisions; how to calculate a company's cost of capital, and develop an intuitive comprehension of financial concepts and analysis.

Restricted to General Business Minors.

0101	William MacDonald MW 9:30am - 10:45am	Seats (Total: 120) VMH 1212

BMGT350 **Marketing Principles and Organization**

Credits: 3 Grading Method: Regular, Pass-Fail

Recommended: ECON200.

An introduction to the concepts and principles of marketing including the marketing of service and nonprofit organizations. Provides an overview of all the concepts in marketing including relationship marketing, product development, pricing, promotion, marketing research, consumer behavior, international marketing, distribution and internal marketing to employees.

Restricted to BMGT majors with 53 credit hours completed. Other interested students should review their eligibility for BMGT 350N.

0101	Wendy Bassett M 9:30am - 10:45am Class time/details on ELMs	Seats (Total: 65) VMH 1412 ONLINE
0201	Henry Boyd M 11:00am - 12:15pm Class time/details on ELMs	Seats (Total: 65) VMH 1412 ONLINE
0301	Henry Boyd M 2:00pm - 3:15pm Class time/details on ELMs	Seats (Total: 65) VMH 1412 ONLINE

0401	Roxanne Lefkoff W 12:30pm - 1:45pm Class time/details on ELMs	Seats (Total: 65) VMH 1412 ONLINE
0501	Roxanne Lefkoff W 9:30am - 10:45am Class time/details on ELMs	Seats (Total: 62) VMH 1412 ONLINE
0601	Roxanne Lefkoff W 11:00am - 12:15pm Class time/details on ELMs	Seats (Total: 65) VMH 1412 ONLINE
0701	Wendy Bassett W 2:00pm - 3:15pm Class time/details on ELMs	Seats (Total: 65) VMH 1412 ONLINE

BMGT350M **Marketing Principles and Organization**

Credits: 3 Grading Method: Regular, Pass-Fail

Recommended: ECON200.

An introduction to the concepts and principles of marketing including the marketing of service and nonprofit organizations. Provides an overview of all the concepts in marketing including relationship marketing, product development, pricing, promotion, marketing research, consumer behavior, international marketing, distribution and internal marketing to employees.

Restricted to General Business minors (#BU02).

0101	Mary Beth Furst Tu 11:00am - 12:15pm Class time/details on ELMs	Seats (Total: 45) VMH 1207 ONLINE
0201	Wendy Bassett Tu 12:30pm - 1:45pm Class time/details on ELMs	Seats (Total: 45) SQH 1117 ONLINE

BMGT350N **Marketing Principles and Organization**

Credits: 3 Grading Method: Regular, Pass-Fail

Recommended: ECON200.

An introduction to the concepts and principles of marketing including the marketing of service and nonprofit organizations. Provides an overview of all the concepts in marketing including relationship marketing, product development, pricing, promotion, marketing research, consumer behavior, international marketing, distribution and internal marketing to employees.

Restricted to Agricultural and Resource Economics (0111C) and Horticulture (0107C) majors with 53 credit hours completed.

0501	Roxanne Lefkoff W 9:30am - 10:45am Class time/details on ELMs	Seats (Total: 3) VMH 1412 ONLINE

BMGT352 **Customer-Centric Innovation**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Prerequisite: BMGT350. Credit only granted for: BMGT352 or BMGT382.

Addresses the management of new products and services with a focus on the innovation process, specifically the development and launching of new products or services: Opportunity Identification, Concept Generation, Design, Testing and Launch.

Contact department for information to register for this course.

BMGT360 **Strategic Management of Human Capital**

Credits: 3 Grading Method: Regular, Pass-Fail

Provides students with the basic knowledge needed to help organizations attract, select, develop, engage, evaluate, and retain talent. Topics covered may include strategic HRM, the role of globalization, legal issues in HRM, work analysis, HR planning, recruitment, personnel selection, performance management and appraisal, training and development, career development, compensation systems, motivating and rewarding performance, labor relations, and employee health and safety.

Restricted to students with 53 credit hours completed.

0101	Vineet Gambhir TuTh 2:00pm - 3:15pm	Seats (Total: 60) VMH 1212
0201	Vineet Gambhir TuTh 3:30pm - 4:45pm	Seats (Total: 60) VMH 1212
SG91	Sarah Wolek TuTh 9:30am - 10:45am	Seats (Total: 60) BLD2 3032

BMGT362 **Negotiations**

Credits: 3 Grading Method: Regular, Pass-Fail

Restriction: Must not have completed COMM425. Credit only granted for: BMGT362 or COMM425.

By using a variety of assessment tools, feedback sources, skill-building exercises, and exercise debriefings, this experiential course is designed to enhance students' negotiating self-confidence and improve students' analytical skills, interpersonal skills, creativity and persuasive abilities.

Restricted to Management majors with 53 credit hours completed.

0101	Gosia Langa Basit MW 3:30pm - 4:45pm	Seats (Total: 45) VMH 1415

BMGT363 **Leadership and Teamwork in Organizations**

Credits: 3 Grading Method: Regular, Pass-Fail

Provides a comprehensive understanding of fundamental leadership concepts, theories, and skills in organizations and applies to assessing and developing effective leadership practices in organizations.

0101	Gerald Suarez MW 5:00pm - 6:15pm *Restricted to Management & Entrepreneurship majors with 53 credit hours completed.*	Seats (Total: 45) VMH 1303
SG92	Myeong-Gu Seo MW 9:30am - 10:45am *Restricted to SG juniors Management and Marketing majors .*	Seats (Total: 45) BLD2 3052

BMGT364 **Managing People and Organizations**

Credits: 3 Grading Method: Regular, Pass-Fail

An introduction to selected aspects of human behavior in organizations generally known as organizational behavior (OB). This course is designed to help students develop systematic and fundamental understanding of people and their behaviors in organizations, as well as useful abilities and skills required to effectively and ethically manage various individual, interpersonal, group, and organization-level processes.

Restricted to BMGT majors with 53 credit hours completed. This course requires the purchase of course materials other than standard textbooks for in class simulations. Students will be required to purchase these materials directly from the simulation publisher(s) at a cost of approximately $20(discounts applied for number of students enrolled in course). More information on purchasing these materials will be available when the course begins.

0101	Gregory Marr MW 9:30am - 10:45am	Seats (Total: 60) VMH 1303
0201	Gregory Marr MW 11:00am - 12:15pm	Seats (Total: 60) VMH 1303
0301	Nicole Coomber TuTh 12:30pm - 1:45pm	Seats (Total: 60) VMH 1212
0401	Gregory Marr MW 2:00pm - 3:15pm	Seats (Total: 60) VMH 1303
0501	Alexander Dennis MW 3:30pm - 4:45pm	Seats (Total: 60) VMH 1303
0601	Siyan Guo TuTh 9:30am - 10:45am	Seats (Total: 60) VMH 1212
0701	Nicole Coomber TuTh 11:00am - 12:15pm	Seats (Total: 60) VMH 1212

BMGT364M **Managing People and Organizations**

Credits: 3 Grading Method: Regular, Pass-Fail

An introduction to selected aspects of human behavior in organizations generally known as organizational behavior (OB). This course is designed to help students develop systematic and fundamental understanding of people and their behaviors in organizations, as well as useful abilities and skills required to effectively and ethically manage various individual, interpersonal, group, and organization-level processes.

Restricted to General Business minors.

0101	Nicole Coomber TuTh 2:00pm - 3:15pm	Seats (Total: 100) ASY 2203

BMGT364N **Managing People and Organizations**

Credits: 3 Grading Method: Regular, Pass-Fail

An introduction to selected aspects of human behavior in organizations generally known as organizational behavior (OB). This course is designed to help students develop systematic and fundamental understanding of people and their behaviors in organizations, as well as useful abilities and skills required to effectively and ethically manage various individual, interpersonal, group, and organization-level processes.

Restricted to Agricultural and Resource Economics (0111C) and Dietetics (1307D) majors with 53 credit hours completed. This course requires the purchase of course materials other than standard textbooks for in class simulations. Students will be required to purchase these materials directly from the simulation publisher(s) at a cost of appoximately $20(discounts applied for number of students enrolled in course). More information on purchasing these materials will be available when the course begins.

0101	Nicole Coomber	Seats (Total: 20)
	TuTh 2:00pm - 3:15pm	ASY 2203

BMGT365 **Entrepreneurial Finance and Private Equity**

Credits: 3 Grading Method: Regular, Pass-Fail

Prerequisite: BMGT461 or BMGT361. Restriction: Junior standing or higher. Credit only granted for: BMGT365, ENES466, SMLP471 or HLMN471.

Studies venture capital and private equity using a combination of cases, lectures and guest speakers. Addresses how venture capitalists provide capital to start-up firms in growing industries and how private equity markets provide capital to help established medium-sized firms (often family businesses) grow and restructure. Focuses on how financial, legal, and economic issues are dealt with in the financial contracts between venture capitalists and their limited partners and between capitalists (or other private equity investors) and the firms in which they invest.

Restricted to BMGT majors and Innovation & Entrepreneurship (#BU03) minors.

0101	Oya Altinkilic	Seats (Total: 40)
	Th 5:00pm - 7:40pm	VMH 1311

BMGT366 **Growth Strategies for Emerging Companies**

Credits: 3 Grading Method: Regular, Pass-Fail

Prerequisite: BMGT461 or BMGT361. Restriction: Junior standing or higher.

Offers practical management tools that are needed to build a new venture into a significant enterprise. The competencies, strategies and structures of successful high performance businesses are studied through cases, videos and guest lecturers. Topics include leadership, internal growth strategies, merger, acquisition and franchising.

Restricted to Innovation and Entrepreneurship Minors and Management Majors.

0101	David Kressler W 2:00pm - 3:15pm M 2:00pm - 3:15pm	Seats (Total: 45) SQH 1117 ONLINE

BMGT367 Career Search Strategies in Business

Credits: 1 Grading Method: Regular, Pass-Fail

Restriction: Must be in a major in BMGT-Robert H. Smith School of Business.

An overview and opportunity to practice job search skills critical to obtaining internships and full-time positions. Course will cover strategies for exploring career options, preparing job search materials, development of job search skills such as interviewing and networking. Students are encouraged to take this course in the sophomore or junior year.

Restricted to BMGT students with 45 credit hours completed.

0101	Erin Saddler, Meghan Houston M 5:00pm - 5:50pm	Seats (Total: 43) VMH 1212
0201	Erin Saddler, Linda Bowers Tu 5:00pm - 5:50pm	Seats (Total: 43) VMH 1412
0301	Erin Saddler, Lawrence Silver W 5:00pm - 5:50pm	Seats (Total: 43) VMH 1212
0401	Erin Saddler, Tyrone Clifton Th 5:00pm - 5:50pm	Seats (Total: 43) VMH 1335
0501	Rahman Anjorin, Erin Saddler M 6:00pm - 6:50pm	Seats (Total: 43) VMH 1412

BMGT367F Career Search Strategies in Business

Credits: 1 Grading Method: Regular, Pass-Fail

Restriction: Must be in a major in BMGT-Robert H. Smith School of Business.

An overview and opportunity to practice job search skills critical to obtaining internships and full-time positions. Course will cover strategies for exploring career options, preparing job search materials, development of job search skills such as interviewing and networking. Students are encouraged to take this course in the sophomore or junior year.

Restricted to students in the Smith School's Smith Start Program (FPFF).

FP01	Erin Saddler, Stephanie Plageman M 5:00pm - 5:50pm	Seats (Total: 40) VMH 1206
FP02	Rachel Cotton, Erin Saddler M 6:00pm - 6:50pm	Seats (Total: 40) VMH 1206
FP03	Erin Saddler, Susan Powell Tu 5:00pm - 5:50pm	Seats (Total: 40) VMH 1335
FP04	Susan Powell, Erin Saddler Tu 6:00pm - 6:50pm	Seats (Total: 40) VMH 1335
FP05	Erin Saddler, Katherine Marrero W 5:00pm - 5:50pm	Seats (Total: 40) VMH 1206
FP06	Michael Poerksen, Erin Saddler W 5:00pm - 5:50pm	Seats (Total: 40) VMH 1412
FP07	Michael Poerksen, Erin Saddler W 6:00pm - 6:50pm	Seats (Total: 40) VMH 1412
FP08	Erin Saddler, Anthony Jablonoski Th 5:00pm - 5:50pm	Seats (Total: 40) VMH 1412
FP09	Erin Saddler, Rebecca Bullard Th 6:00pm - 6:50pm	Seats (Total: 40) VMH 1412
FP10	Erin Saddler, Dina Broydo Th 5:00pm - 5:50pm	Seats (Total: 40) VMH 1418
FP11	Anita Galiano, Erin Saddler W 6:00pm - 6:50pm	Seats (Total: 40) VMH 1206

FP12	Rachel Cotton, Erin Saddler M 5:00pm - 5:50pm	Seats (Total: 40) VMH 1412

BMGT369D **Experiential Learning in Business Innovation and Entrepreneurship; Ladies First Founders**

(Perm req)

Credits: 1 Grading Method: Regular, Pass-Fail, Audit

Selected experiential learning opportunities in business innovation and entrepreneurship

0101	Sara Herald Tu 3:30pm - 4:45pm	Seats (Total: 12) VMH 2333D

BMGT370 **Introduction to Transportation**

Credits: 3 Grading Method: Regular, Pass-Fail

An overview of the transportation field with an emphasis on freight movements from the perspective of both providers of capacity and users of freight services. Examines the characteristics of the freight modes and the role of each mode as a major component of logistics and supply chain management. Explores the economics, energy use, and finances of each mode as well as the impact of government policies on each mode's future. Discussion of infrastructure and capacity needs of the transportation system and its ability to support the economy.

Restricted to BMGT students with 53 credit hours completed.

0101	Leland Gardner MW 8:00am - 9:15am	Seats (Total: 36) VMH 1336
0201	Leland Gardner MW 9:30am - 10:45am	Seats (Total: 36) VMH 1336

BMGT372 **Introduction to Logistics and Supply Chain Management**

Credits: 3 Grading Method: Regular, Pass-Fail

Supply chain management involves the coordination of suppliers, manufacturers, distributors, and retailers to ensure that products and services are available to the final consumer in a timely and cost-effective fashion. Logistics management is the subset of supply chain management dealing with the physical flows of product and includes such activities as transportation management, warehousing, materials handling, inventory management, and order fulfillment. Attention is paid to the logistics cost trade-offs within the firm and between members of the supply chain.

0101	Humberto Coronado TuTh 9:30am - 10:45am *Restricted to BMGT majors with 53 credit hours completed.*	Seats (Total: 40) VMH 1335
0201	Humberto Coronado TuTh 12:30pm - 1:45pm *Restricted to BMGT majors with 53 credit hours completed.*	Seats (Total: 40) VMH 1303
0301	Humberto Coronado MW 2:00pm - 3:15pm *Restricted to BMGT majors with 53 credit hours completed.*	Seats (Total: 40) VMH 1411
0401	Humberto Coronado MW 3:30pm - 4:45pm *Restricted to BMGT majors with 53 credit hours completed.*	Seats (Total: 40) VMH 1411
SG91	Richard Hutchins MW 9:30am - 10:45am *Restricted to Junior BMGT-Shady Grove cohort students majoring in Management and Marketing. Other students may request enrollment on a space available basis. UMCP undergraduate BMGT students are not eligible to enroll at Shady Grove.*	Seats (Total: 50) BLD3 4230

BMGT380 **Business Law I**

Credits: 3 Grading Method: Regular, Pass-Fail

Legal aspects of business relationships. Examination of torts and business crimes, contracts and agency. The law of personal property and bailment relationships. Survey of public policy issues.

Restricted to BMGT majors with 53 credit hours completed. Other interested students should review their eligibility for BMGT380N.

0101	Burt Leete MW 9:30am - 10:45am	Seats (Total: 55) VMH 1202
0201	Burt Leete MW 11:00am - 12:15pm	Seats (Total: 50) VMH 1202
0301	Richard Daniels MW 3:30pm - 4:45pm	Seats (Total: 60) VMH 1412

0401	Jennifer Gershberg TuTh 11:00am - 12:15pm	Seats (Total: 60) VMH 1303
0501	Jennifer Gershberg TuTh 2:00pm - 3:15pm	Seats (Total: 60) VMH 1412
0601	Jennifer Gershberg TuTh 9:30am - 10:45am	Seats (Total: 60) VMH 1303
0701	Justin Reyna MW 12:30pm - 1:45pm	Seats (Total: 45) VMH 1411

BMGT380N **Business Law I**

Credits: 3 Grading Method: Regular, Pass-Fail

Legal aspects of business relationships. Examination of torts and business crimes, contracts and agency. The law of personal property and bailment relationships. Survey of public policy issues.

Restricted to Agricultural and Resource Economics (0111C) majors with 53 credit hours completed.

0201	Burt Leete MW 11:00am - 12:15pm	Seats (Total: 5) VMH 1202

BMGT382 **Marketing and Innovation for Entrepreneurs**

Credits: 3 Grading Method: Regular, Pass-Fail

Restriction: Must not have completed BMGT352. Credit only granted for: BMGT352 or BMGT382. Additional information: Course will not satisfy a Marketing major requirement.

Marketing and Innovation are two critically important activities that determine success in any business venture. This course will focus on understanding the fundamentals of marketing and innovation from the perspective of an entrepreneur. At a broad level, we will apply proven marketing frameworks (STP and 4Ps) to effectively deliver innovation in an entrepreneurial context.

Restricted to Innovation and Entrepreneurship minors.

0101	Mary Beth Furst TuTh 9:30am - 10:45am	Seats (Total: 40) ARC 1101

BMGT385 **Operations Management**

Credits: 3 | Grading Method: Regular, Pass-Fail

Credit only granted for: BMGT385 or ENME426.

Studies the design, management and improvement of a firm's processes and systems for creation and delivery of products and services. Includes strategic and operational views of supply chain, product development, and capacity analysis, highlighting the competitive advantages that operations management can provide the firm.

Restricted to BMGT majors and QUEST program students with 53 credit hours completed.

0101	Kazim Ruhi TuTh 12:30pm - 1:45pm	Seats (Total: 45) VMH 1528
0201	Kazim Ruhi TuTh 9:30am - 10:45am	Seats (Total: 45) VMH 1528

BMGT392 Introduction to International Business Management

Credits: 3 | Grading Method: Regular, Pass-Fail

Prerequisite: ECON200.

A study of the domestic and foreign environmental factors affecting the international operations of U.S. business firms. The course also covers the administrative aspects of international marketing, finance and management.

0101	Roxanne Jaffe TuTh 8:00am - 9:15am *Restricted to BMGT majors with 53 credit hours completed.*	Seats (Total: 40) VMH 1412
SG91	Richard Hutchins MW 12:30pm - 1:45pm *Restricted to Junior BMGT-Shady Grove students majoring in Management, and Marketing. Other students may request enrollment on a space available basis. UMCP undergraduate BMGT students are not eligible to enroll at Shady Grove*	Seats (Total: 50) BLD3 4230

BMGT397 Mentoring Multidisciplinary Teams

Credits: 3 | Grading Method: Regular, Pass-Fail, Audit

Restriction: Restricted to QUEST Program (TQMP) students. Also offered as: ENES397. Credit only granted for: BMGT397 or ENES397.

QUEST students practice essential skills for mentoring and coaching multidisciplinary teams. These include effective communications, facilitation, conflict resolution, and the ability to motivate. Students will practice these skills as mentors for student teams from BMGT/ENES 190H. In the process, they will strengthen their knowledge of design and quality techniques.

Restricted to students in the QUEST program. Also listed as ENES397. Credit granted for BMGT397 or ENES397.

0101	Pamela Armstrong Tu 5:00pm - 7:40pm	Seats (Total: 9) VMH 1415

BMGT398 **Individual Study in Business and Management**

(Perm req)

Credits: 1-3 Grading Method: Regular, Pass-Fail

Contact department for information to register for this course.

BMGT398A **Individual Study in Business and Management; Internship**

(Perm req)

Credits: 1-3 Grading Method: Regular, Pass-Fail

Restricted to Smith School of Business students. Interested students should contact Erin Fields Saddler (BMGT398A@rhsmith.umd.edu) for details and permission.

0101	Erin Saddler Contact instructor or department for details.	Seats (Total: 35)
SG91	Erin Saddler Contact instructor or department for details.	Seats (Total: 20)

BMGT398C **Individual Study in Business and Management; Undergraduate Teaching Scholars Training**

Credits: 1 Grading Method: Regular, Pass-Fail

Restricted to Accounting Teaching Scholars (FPTS).

0101	Progyan Basu Contact instructor or department for details.	Seats (Total: 1)

BMGT398W **Individual Study in Business and Management; Junior Wall Street Fellows**

Credits: 1 Grading Method: Regular, Pass-Fail

Restricted to junior Wall Street Fellows.

0101	Julie Pavlovsky Th 12:30pm - 1:45pm	Seats (Total: 20) VMH 1415	

BMGT402 **Database Systems**

Credits: 3 Grading Method: Regular, Pass-Fail

Recommended: BMGT302. Credit only granted for: INST327 or BMGT402.

The fundamentals of database management systems (DBMS), data models, query processing, and data warehouses, and their application in the development of business information systems will be covered. An important goal of this course is to understand the value of information resources and information management challenges within an organization.

Restricted to BMGT majors and Business Analytics minors with 72 credit hours completed.

0101	Vidit Mehta TuTh 2:00pm - 3:15pm Th 5:00pm - 5:50pm	Seats (Total: 38) VMH 2203 VMH 2203	 Lab
0201	Woei-Jyh Lee MW 8:00am - 9:15am Tu 5:00pm - 5:50pm	Seats (Total: 38) VMH 2203 VMH 2203	 Lab

BMGT402F **Database Systems**

Credits: 3 Grading Method: Regular, Pass-Fail

Recommended: BMGT302. Credit only granted for: INST327 or BMGT402.

The fundamentals of database management systems (DBMS), data models, query processing, and data warehouses, and their application in the development of business information systems will be covered. An important goal of this course is to understand the value of information resources and information management challenges within an organization.

Restricted to students in the Technology and Business Transformation Fellows (FPTT).

FP01	Louiqa Raschid TuTh 12:30pm - 1:45pm Th 6:00pm - 6:50pm	Seats (Total: 30) VMH 2203 VMH 2203	 Lab

BMGT403 **Systems Analysis and Design**

Credits: 3 Grading Method: Regular, Pass-Fail

Prerequisite: BMGT301; or students who have taken courses with comparable content may contact the department. Recommended: BMGT302.

Techniques and tools applicable to the analysis and design of computer-based information systems. System life cycle, requirements analysis, logical design of databases and performance evaluation. Emphasis on case studies. Project required that involves the design, analysis and implementation of an information system.

Restricted to BMGT majors with 72 credit hours completed.

0101	Hassan Ibrahim MW 12:30pm - 1:45pm	Seats (Total: 40) VMH 2203
0201	Paul Shapiro Th 7:00pm - 9:40pm	Seats (Total: 40) VMH 1307

BMGT404 **Essential Data Skills for Business Analytics**

Credits: 3 Grading Method: Regular, Pass-Fail

Prerequisite: BMGT301.

Understand the principles of data science and business analytics to collect, analyze and visualize business data. Students will learn the use of industry standard software with applications in finance, accounting, marketing and operations.

Restricted to BMGT majors and Business Analytics minors with 72 credit hours completed.

0101	John Bono MW 12:30pm - 1:45pm	Seats (Total: 26) VMH 3522
0201	John Bono MW 2:00pm - 3:15pm	Seats (Total: 35) VMH 2203
0301	John Bono M 7:00pm - 9:40pm	Seats (Total: 35) VMH 2203
0401	Kunpeng Zhang MW 8:00am - 9:15am	Seats (Total: 20) VMH 3522

0501	Kunpeng Zhang MW 9:30am - 10:45am	Seats (Total: 20) VMH 3522

BMGT407 **Information Systems Projects**

Credits: 3 Grading Method: Regular, Pass-Fail

Prerequisite: BMGT402 and BMGT403. Restriction: Senior standing.

Senior capstone course for the decision and information sciences major. Collected knowledge from the DIS courses and application to significant problems of size and complexity. State-of-the-art research ideas and current business and industrial practices in information systems.

Restricted to Information Systems majors with 86 credit hours completed.

0101	Hassan Ibrahim MW 11:00am - 12:15pm	Seats (Total: 40) VMH 2203
0201	Hassan Ibrahim W 7:00pm - 9:40pm	Seats (Total: 40) VMH 2203
0301	Hassan Ibrahim TuTh 3:30pm - 4:45pm	Seats (Total: 40) VMH 2203
0401	Hassan Ibrahim Tu 7:00pm - 9:40pm	Seats (Total: 40) VMH 2203
0501	Hassan Ibrahim Th 7:00pm - 9:40pm	Seats (Total: 40) VMH 2203

BMGT408V **Emerging Topics in Information Systems; Data Visualization and Web Analytics**

Credits: 3 Grading Method: Regular, Pass-Fail

Selected advanced topics covering emerging developments in the field of decision and information technologies.

Prerequisite: BMGT301; BMGT302 Recommended. Restricted to Information Systems majors (0702B) with 72 credit hours completed.

0101	Lauren Rhue TuTh 11:00am - 12:15pm	Seats (Total: 28) VMH 1518

0201	Lauren Rhue TuTh 12:30pm - 1:45pm	Seats (Total: 28) VMH 1307

BMGT410 Government Accounting

Credits: 3 Grading Method: Regular, Pass-Fail

Prerequisite: BMGT221.

An introduction to the theory and practice of accounting and financial reporting as applied in both federal and state/local governments, with a focus on generally accepted accounting principles applicable in each. Topics include analyzing transactions; recognizing transactions in the accounting cycles; and preparing and analyzing financial statements and the overall financial reports at both the federal and state/local government levels.

Restricted to Accounting majors with 60 credit hours completed.

0101	Gary Bulmash TuTh 11:00am - 12:15pm	Seats (Total: 40) VMH 1520

BMGT411 Ethics and Professionalism in Accounting

Credits: 3 Grading Method: Regular, Pass-Fail

Prerequisite: BMGT311. Restriction: Must be in Accounting program.

Analysis and discussion of issues relating to ethics and professionalism in accounting.

0101	Sandra Rose MW 9:30am - 10:45am *Restricted to Accounting majors with 86 credit hours completed.*	Seats (Total: 30) VMH 1518
0201	Sandra Rose MW 11:00am - 12:15pm *Restricted to Accounting majors with 86 credit hours completed.*	Seats (Total: 30) VMH 1518
0301	Jeffrey Milton TuTh 12:30pm - 1:45pm *Restricted to Accounting majors with 86 credit hours completed.*	Seats (Total: 30) VMH 1518

SG91	Gary Bulmash MW 9:30am - 10:45am	Seats (Total: 30) BLD2 2052
	Restricted to Senior BMGT-Shady Grove students majoring in Accounting. Other students may request enrollment on a space available basis. UMCP undergraduate BMGT students are not eligible to enroll at Shady Grove.	
SG92	Gary Bulmash MW 11:00am - 12:15pm	Seats (Total: 30) BLD2 2052
	Restricted to Senior BMGT-Shady Grove students majoring in Accounting. Other students may request enrollment on a space available basis. UMCP undergraduate BMGT students are not eligible to enroll at Shady Grove.	

BMGT417 **Taxation of Corporations, Partnerships and Estates**

Credits: 3 Grading Method: Regular, Pass-Fail

Prerequisite: BMGT221.

Federal taxation of corporations using the life-cycle approach-formation, operation, assessment, merger, reorganization and liquidation. Overviews of pass-through entities - partnerships and s-corporations -using the life-cycle approach, and the tax consequences of wealth transfers by individuals - gift and estate taxation. Both tax planning and compliance issues are addressed.

0101	Eugene Cantor TuTh 3:30pm - 4:45pm	Seats (Total: 35) VMH 1314
	Restricted to Accounting majors with 84 credit hours completed.	
SG91	Jeffrey Milton MW 12:30pm - 1:45pm	Seats (Total: 35) BLD2 1032
	Restricted to Senior BMGT-Shady Grove students majoring in Accounting. Other students may request enrollment on a space available basis. UMCP undergraduate BMGT students are not eligible to enroll at Shady Grove.	
SG92	Jeffrey Milton MW 2:00pm - 3:15pm	Seats (Total: 35) BLD2 1032
	Restricted to Senior BMGT-Shady Grove students majoring in Accounting. Other students may request enrollment on a space available basis. UMCP undergraduate BMGT students are not eligible to enroll at Shady Grove.	

BMGT422 **Auditing Theory and Practice**

Credits: 3

Grading Method: Regular, Pass-Fail

Prerequisite: BMGT310; and must have completed or be concurrently enrolled in BMGT311.

A study of the independent accountant's attest function, generally accepted auditing standards, compliance and substantive tests and report forms and opinions.

Restricted to Accounting majors.

0101	Mary Keim MW 11:00am - 12:15pm	Seats (Total: 30) VMH 1311
0201	Mary Keim MW 12:30pm - 1:45pm	Seats (Total: 30) VMH 1307
0301	James McKinney MW 2:00pm - 3:15pm	Seats (Total: 30) VMH 1307

BMGT424 **Advanced Accounting**

Credits: 3

Grading Method: Regular, Pass-Fail

Prerequisite: BMGT311.

Advanced accounting theory applied to specialized topics and current problems. Emphasis on consolidated statements and partnership accounting.

Restricted to Accounting majors.

0101	Samuel Handwerger TuTh 11:00am - 12:15pm	Seats (Total: 35) VMH 1311

BMGT428J **Special Topics in Accounting; Accounting Advisory for Closely Held Businesses**

Credits: 3

Grading Method: Regular, Pass-Fail

Selected advanced topics in Accounting.

Restriction: Restricted to Accounting majors only Prerequisites: BMGT220 and BMGT340

0101	Brent Solomon TuTh 3:30pm - 4:45pm	Seats (Total: 40) VMH 1311

BMGT430 **Data Modeling in Business**

Credits: 3 Grading Method: Regular, Pass-Fail

Prerequisite: BMGT231 or BMGT230; or permission of BMGT-Robert H. Smith School of Business.

Explores the role of statistical models in business analytics to drive managerial decision-making and improve performance through the use of relevant data-motivated examples. Topics include regression models (both simple and multiple regression, as well as logistic regression for binary data), model validation, variable transformation, variable selection, discriminant analysis, and forecasting. These topics are modeled using state-of-the-art data analytics software.

Restricted to BMGT majors with 72 credit hours completed or Business Analytics minors.

0101	Radu Lazar MW 11:00am - 12:15pm	Seats (Total: 50) VMH 1336
0201	Radu Lazar MW 5:00pm - 6:15pm	Seats (Total: 50) VMH 1336

BMGT431 **Data Analytics**

Credits: 3 Grading Method: Regular, Pass-Fail

Prerequisite: BMGT430.

An introduction to the tools and techniques that are central to the analysis of abundant data that is being collected in many forms including web traffic, social network data, and reviews and comments on websites.

Restricted to Business Analytics minors or OM majors.

0101	Radu Lazar MW 9:30am - 10:45am	Seats (Total: 45) VMH 1415
0201	Radu Lazar MW 3:30pm - 4:45pm	Seats (Total: 45) VMH 1336
0301	Radu Lazar TuTh 11:00am - 12:15pm	Seats (Total: 45) VMH 1307

BMGT434 **Analytics Consulting: Cases and Projects**

Credits: 3 Grading Method: Regular, Pass-Fail

Prerequisite: BMGT332; and (MATH120 or MATH140; or must have completed MATH220). Or students who have taken courses with comparable content may contact the department. Restriction: Must be in a major in BMGT-Robert H. Smith School of Business.

This course assumes that students have already been introduced to the concepts and techniques of operations research/business analytics (OR/BA). Published papers, short cases, and projects in OR/BA will be analyzed and discussed in a thoughtful way, taking into account the soft (people-related) issues and the hard (mathematical/optimization) issues.

Restricted to Business majors, QUEST Program students, and Business Analytic minors with 72 credit hours completed.

0101	Bruce Golden TuTh 2:00pm - 3:15pm	Seats (Total: 40) VMH 1418
0201	John Sammarco M 6:30pm - 9:10pm	Seats (Total: 40) VMH 1303

BMGT435 Business Process Simulation

Credits: 3 Grading Method: Regular, Pass-Fail

Prerequisite: BMGT231 or BMGT230; or students who have taken courses with comparable content may contact the department. Restriction: Must be in a major in BMGT-Robert H. Smith School of Business.

Develop and plan simulation studies, build simulation models with special purpose software, analyze and interpret the results. Extensive use of applications and real-world examples. The emphasis is on model formulation and the interpretation of results, rather than mathematical theory.

Restricted to BMGT majors and Business Analytics minors with 60 credit hours completed.

0101	Sujin Kim TuTh 9:30am - 10:45am	Seats (Total: 45) VMH 1520

BMGT438A Special Topics in Operations Management; Applied Quantitative Analysis

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Selected advanced topics in operations management.

Restricted to QUEST students. Cross-listed with ENES498A. Credit granted for BMGT438A or ENES489A.

0101	Joshua Kohn, Joseph Bailey TuTh 2:00pm - 3:15pm	Seats (Total: 55) ESJ 0215

BMGT438G **Special Topics in Operations Management; Design and Innovation in Silicon Valley**

Credits: 3 Grading Method: Regular, Pass-Fail

Selected advanced topics in operations management.

Restricted to QUEST program students. Cross-listed with ENES489Q. Credit granted for BMGT438G or ENES489Q. Travel to Silicon Valley during Spring Break required of all class participants.

0101	Jessica Roffe M 5:00pm - 7:40pm	Seats (Total: 15) VMH 1415

BMGT440 **Advanced Financial Management**

Credits: 3 Grading Method: Regular, Pass-Fail

Prerequisite: BMGT340.

Analysis and discussion of cases and readings relating to financial decisions of the firm. The application of finance concepts to the solution of financial problems is emphasized.

Restricted to BMGT majors with 68 credit hours completed.

0101	David Kass TuTh 11:00am - 12:15pm	Seats (Total: 50) VMH 1335
0201	David Kass TuTh 2:00pm - 3:15pm	Seats (Total: 50) VMH 1335
0301	David Kass TuTh 3:30pm - 4:45pm	Seats (Total: 50) VMH 1335

BMGT440F **Advanced Financial Management**

Credits: 3 Grading Method: Regular, Pass-Fail

Prerequisite: BMGT340.

Analysis and discussion of cases and readings relating to financial decisions of the firm. The application of finance concepts to the solution of financial problems is emphasized.

Restricted to students in the Smith School's Emerging CFO's Fellows program.

FP01	Susan White, Karen Hallows MW 11:00am - 12:15pm	Seats (Total: 35) VMH 1415

BMGT441 Fixed Income

Credits: 3 Grading Method: Regular, Pass-Fail

Prerequisite: BMGT340. Credit only granted for: BMGT448A or BMGT441. Formerly: BMGT448A.

Describes important financial instruments which have market values that are sensitive to interest rate movements. Develops tools to analyze interest rate sensitivity and value fixed income securities. Defines and explains the vocabulary of the bond management business.

Restricted to Finance majors with 72 credit hours completed.

0101	Aysun Alp Paukowits MW 3:30pm - 4:45pm	Seats (Total: 45) VMH 1307
0201	Aysun Alp Paukowits MW 5:00pm - 6:15pm	Seats (Total: 45) VMH 1307
0301	Aysun Alp Paukowits MW 12:30pm - 1:45pm	Seats (Total: 45) VMH 1303

BMGT442F Advanced Portfolio Management

Credits: 3 Grading Method: Regular, Pass-Fail

Prerequisite: BMGT343. Credit only granted for: BMGT442 or BMGT448C. Formerly: BMGT448C.

An in-depth coverage of statistical methods for choosing stocks is provided. Financial markets data is used in the class. Students are also expected to learn and use Matlab during the class to implement the concepts of the class.

Restricted to Quantitative Finance Fellows (FPQF).

FP01	Russell Wermers TuTh 12:30pm - 1:45pm	Seats (Total: 35) VMH 3505

BMGT443 Applied Equity Analysis and Portfolio Management

Credits: 3 Grading Method: Regular, Pass-Fail

Prerequisite: BMGT343.

Study and application of the concepts, methods, models, and empirical findings to the analysis, valuation and selection of securities, especially common stock.

Restricted to BMGT majors with 84 credit hours completed.

0101	Joseph Perfetti MW 11:00am - 12:15pm	Seats (Total: 45) VMH 3505
0201	Joseph Perfetti MW 12:30pm - 1:45pm	Seats (Total: 45) VMH 3505
0301	Joseph Perfetti MW 2:00pm - 3:15pm	Seats (Total: 45) VMH 3505
0401	Joseph Perfetti MW 3:30pm - 4:45pm	Seats (Total: 45) VMH 3505

BMGT444 Futures and Options Contracts

Credits: 3 Grading Method: Regular, Pass-Fail

Prerequisite: BMGT343. Credit only granted for: BMGT444 or MATH424.

The institutional features and economic rationale underlying markets in futures and options. Hedging, speculation, structure of futures prices, interest rate futures, efficiency in futures markets and stock and commodity options.

Restricted to Finance (0503F) majors with 84 credit hours completed.

0101	Albert Crosby TuTh 5:00pm - 6:15pm	Seats (Total: 45) VMH 1206
0201	Albert Crosby TuTh 9:30am - 10:45am	Seats (Total: 45) VMH 1418
0301	Albert Crosby TuTh 3:30pm - 4:45pm	Seats (Total: 45) VMH 1206

BMGT445 Banking and Financial Institutions

Credits: 3 Grading Method: Regular, Pass-Fail

Prerequisite: BMGT340. Recommended: ECON330 or BMGT341.

Analysis and discussion of cases and readings in commercial bank management. The loan function is emphasized; also the management of liquidity reserves, investments for income and source of funds. Bank objectives, functions, policies, organization, structure, services and regulation are considered.

Restricted to Finance (0503F) majors with 84 credit hours completed.

0101	Michael Padhi TuTh 9:30am - 10:45am	Seats (Total: 45) VMH 1411
0201	Michael Padhi TuTh 11:00am - 12:15pm	Seats (Total: 45) VMH 1411
0301	Michael Padhi TuTh 12:30pm - 1:45pm	Seats (Total: 45) VMH 1411

BMGT446 International Finance

Credits: 3 Grading Method: Regular, Pass-Fail

Prerequisite: BMGT340.

Financial management from the perspective of the multinational corporation. Topics covered include the organization and functions of foreign exchange and international capital markets, international capital budgeting, financing foreign trade and designing a global financing strategy. Emphasis of the course is on how to manage exchange and political risks while maximizing benefits from global opportunity sets faced by the firm.

0101	Vojislav Maksimovic TuTh 3:30pm - 4:45pm *Restricted to Finance and International Business majors with 72 credit hours completed.*	Seats (Total: 45) VMH 1307
0201	Seung Oh TuTh 11:00am - 12:15pm *Restricted to Finance and International Business majors with 72 credit hours completed.*	Seats (Total: 45) VMH 1418
0301	Seung Oh TuTh 2:00pm - 3:15pm *Restricted to Finance and International Business majors with 72 credit hours completed.*	Seats (Total: 45) VMH 1411

0401	Vojislav Maksimovic	Seats (Total: 45)
	TuTh 5:00pm - 6:15pm	VMH 1307
	Restricted to Finance and International Business majors with 72 credit hours completed.	

BMGT448V **Special Topics in Finance; Text Mining for Economics and Finance**

Credits: 3 Grading Method: Regular, Pass-Fail

Selected advanced topics in finance.

Course Prerequisites: MATH120/140, BMGT230, and BMGT340. Restricted to Finance majors with 60 or more credits completed.

0101	Paul Soto	Seats (Total: 40)
	W 6:30pm - 9:10pm	VMH 1336

BMGT449F **Investment Fund Management: Lemma Senbet Fund**

Credits: 3 Grading Method: Regular, Pass-Fail

The Lemma Senbet Fund is a year-long, advanced finance course available to undergraduate finance majors in their senior year. Ten to twelve students will be selected in the spring of their junior year to participate on the fund, two as portfolio managers and eight to ten as equity analysts. The course provides students with the opportunity to apply what they have learned in finance classes to actual investment decisions, through researching real companies and managing a portfolio of real money.

Restriction: Restricted to students in the Smith School's Lemma Senbet Fund Fellows program

FP01	Sarah Kroncke	Seats (Total: 12)
	TuTh 12:00pm - 1:50pm	VMH 2509

BMGT450 **Integrated Marketing Communications**

Credits: 3 Grading Method: Regular, Pass-Fail

Prerequisite: BMGT350. Restriction: Must be in a major in BMGT-Robert H. Smith School of Business. Credit only granted for: BMGT354 or BMGT450. Formerly: BMGT354.

In-depth study of coordinated marketing activities including advertising, sales promotion, Internet marketing, direct marketing and personal selling. Emphasizes strategic planning to effectively use these promotional tools to communicate with customers and meet marketing goals. Blends theory and current practice to provide managerial orientation.

0101	Christine Schaaf TuTh 3:30pm - 4:45pm *Restricted to BMGT majors with 60 credit hours completed.*	Seats (Total: 45) VMH 1418

BMGT451 Consumer Analysis

Credits: 3 Grading Method: Regular, Pass-Fail

Prerequisite: BMGT350. Recommended: PSYC100; and PSYC221.

Identifying buyer behavior concepts relevant to a specific marketing problem so that appropriate marketing decisions can be made. Conceptual frameworks are drawn from psychology, sociology, economics, and other social sciences to aid in understanding the behavior of ultimate and industrial buyers.

0101	Ali Faraji-Rad TuTh 9:30am - 10:45am *Restricted to Marketing majors with 68 credit hours completed.*	Seats (Total: 35) VMH 1314
0201	Ali Faraji-Rad TuTh 11:00am - 12:15pm *Restricted to Marketing majors with 68 credit hours completed.*	Seats (Total: 35) VMH 1314
0301	Ali Faraji-Rad TuTh 2:00pm - 3:15pm *Restricted to Marketing majors with 68 credit hours completed.*	Seats (Total: 35) VMH 1314
SG91	Marjorie Bonavia TuTh 11:00am - 12:15pm *Restricted to Senior BMGT-Shady Grove students majoring in Internationa Business and Junior BMGT-Shady Grove students majoring in Marketing. Other students may request enrollment on a space available basis. UMCP undergraduate BMGT students are not eligible to enroll at Shady Grove.*	Seats (Total: 50) BLD2 2062

BMGT452 Marketing Research Methods

Credits: 3 Grading Method: Regular, Pass-Fail

Prerequisite: BMGT350 and BMGT230.

Focuses on aiding marketing decision-making through exploratory, descriptive and casual research. Develops student skills in designing market research studies, including selection of data collection method, development of data collection instrument, sample design, collection and statistical analysis of data and reporting the results.

Restricted to Marketing majors with 72 credit hours completed.

0101	Bruno Jacobs MW 3:30pm - 4:45pm	Seats (Total: 32) VMH 1311
0201	Min Kim MW 9:30am - 10:45am	Seats (Total: 32) VMH 1307
0301	Richard Toohey MW 11:00am - 12:15pm	Seats (Total: 32) VMH 1307

BMGT454 Global Marketing

Credits: 3 Grading Method: Regular, Pass-Fail

Prerequisite: BMGT350.

Marketing functions from the global executive's viewpoint, including coverage of global marketing policies relating to product adaptation, data collection and analysis, channels of distribution, pricing, communications and cost analysis. Consideration is given to the cultural, legal, financial and organizational aspects of global marketing.

Restricted to BMGT majors with 72 credit hours completed.

0101	You Kim MW 2:00pm - 3:15pm	Seats (Total: 45) VMH 1418
0201	You Kim MW 12:30pm - 1:45pm	Seats (Total: 45) VMH 1418

BMGT455 Sales Management

Credits: 3 Grading Method: Regular, Pass-Fail

Prerequisite: BMGT350.

The roles of the sales executive as a planner, manager of resources and marketing functions and recruiter, trainer, motivator and leader of field sales personnel. Techniques and sequence of problem analysis for selling and sales management decisions and to the practical framework in which these decisions take place. Teaching vehicles feature strong classroom interactions, cases, journal articles, research findings, guest sales managers, debates, and modern company practices.

Restricted to Senior BMGT-Shady Grove cohort students majoring in Marketing. Other students may request enrollment on a space available basis. UMCP undergraduate students are not eligible to enroll at Shady Grove.

SG91	Kathleen Kelly TuTh 11:00am - 12:15pm	Seats (Total: 40) BLD2 3052

BMGT457 **Marketing Policies and Strategies**

Credits: 3 | Grading Method: Regular, Pass-Fail | CORE: CS

Prerequisite: BMGT350.

This capstone course ties together various marketing concepts using the fundamentals of strategic market planning as the framework. Application of these principles is accomplished by analyzing and discussing cases and by playing a marketing strategy computer simulation game. Analysis of current business articles to understand the link between theory and real-world problem solving.

0101	Roland Rust MW 11:00am - 12:15pm *Restricted to Marketing majors with 100 credit hours completed.*	Seats (Total: 45) VMH 1418
0201	Mary Harms TuTh 12:30pm - 1:45pm *Restricted to Marketing majors with 100 credit hours completed.*	Seats (Total: 45) VMH 1418
0301	Mary Beth Furst MW 12:30pm - 1:45pm *Restricted to Marketing majors with 100 credit hours completed.*	Seats (Total: 45) VMH 1336
0401	Henry Boyd MW 9:30am - 10:45am	Seats (Total: 45) VMH 1411

SG91	Elie Ashery MW 9:30am - 10:45am	Seats (Total: 35) BLD2 2062
	Restricted to Senior BMGT-Shady Grove students majoring in Marketing. Other students may request enrollment on a space available basis. UMCP undergraduate BMGT students are not eligible to enroll at Shady Grove.	

BMGT458C **Special Topics in Marketing**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Selected advanced topics in marketing.

Contact department for information to register for this course.

BMGT461 **Entrepreneurship**

Credits: 3 Grading Method: Regular, Pass-Fail General Education: DSSP

Restriction: Must not have completed BMGT361. Credit only granted for: BMGT261, BMGT361, BMGT461, ENES460, SMLP470 or HLMN470.

Process of creating new ventures, including evaluating the entrepreneurial team, the opportunity and the financing requirements. Skills, concepts, mental attitudes and knowledge relevant for starting a new business.

Restricted to BMGT majors with 72 credit hours completed. Non-majors should register for BMGT461N. BMGT minors should register for BMGT461M.

0101	Maurice Boissiere W 7:00pm - 9:40pm	Seats (Total: 15) VMH 1202
0201	Jeffrey Mund MW 12:30pm - 1:45pm	Seats (Total: 40) VMH 1311

BMGT461M **Entrepreneurship**

Credits: 3 Grading Method: Regular, Pass-Fail General Education: DSSP

Restriction: Must not have completed BMGT361. Credit only granted for: BMGT261, BMGT361, BMGT461, ENES460, SMLP470 or HLMN470.

Process of creating new ventures, including evaluating the entrepreneurial team, the opportunity and the financing requirements. Skills, concepts, mental attitudes and knowledge relevant for starting a new business.

Open to any College Park student.

0101	David Kressler TuTh 2:00pm - 3:15pm Class time/details on ELMs	Seats (Total: 60) TWS 1100 ONLINE

BMGT461N **Entrepreneurship**

Credits: 3 | Grading Method: Regular, Pass-Fail | General Education: DSSP

Restriction: Must not have completed BMGT361. Credit only granted for: BMGT261, BMGT361, BMGT461, ENES460, SMLP470 or HLMN470.

Process of creating new ventures, including evaluating the entrepreneurial team, the opportunity and the financing requirements. Skills, concepts, mental attitudes and knowledge relevant for starting a new business.

Open to all non-BMGT majors with 72 credit hours completed. BMGT majors should register for BMGT 461. Not open to Innovation and Entrepreneurship minors.

0101	Maurice Boissiere W 7:00pm - 9:40pm	Seats (Total: 20) VMH 1202

BMGT463 **Cross-cultural Challenges in Business**

Credits: 3 | Grading Method: Regular, Pass-Fail

Restriction: Must be in a major in BMGT-Robert H. Smith School of Business.

Examines in depth the nature of international cultural value-differences and their behavioral-related effects in the workplace. Topics include decision-making and leadership styles and reactions to various work assignments and reward structures.

Restricted to International Business, Management, & Entrepreneurship majors with 72 credit hours completed.

0101	Debra Shapiro MW 3:30pm - 4:45pm	Seats (Total: 35) VMH 1314
0201	Debra Shapiro MW 2:00pm - 3:15pm	Seats (Total: 35) VMH 1314
SG91	Gerald Suarez MW 11:00am - 12:15pm	Seats (Total: 40) BLD2 3052

BMGT466 **Global Business Strategy**

Credits: 3 Grading Method: Regular, Pass-Fail

Restriction: Must be in a major in BMGT-Robert H. Smith School of Business.

Focuses on the strategic challenges that directly result from and are associated with the globalization of industries and companies. Topics include drivers of industry globalization, difference between global and multi-domestic industry, global expansion strategies, sources of competitive advantage in a global context, and coordination of a company across a global network.

Restricted to International Business, Management, and Entrepreneurship & Entrepreneurship majors (0503I, 0503G, 0503E) with 72 credit hours completed.

0101	Roy Thomason, Mark Wellman M 4:00pm - 6:40pm	Seats (Total: 55) TWS 1100

BMGT467 **Strategic Innovation and Entrepreneurship**

Credits: 3 Grading Method: Regular, Pass-Fail

Credit only granted for: BMGT467, ENES463 or HLMN472.

Provides an understanding of how innovation affects the competitive dynamics of markets, how firms can strategically manage innovation, and how firms can create and implement strategies to maximize their likelihood of success.

Restricted to Innovation and Entrepreneurship minors. Meets in-person every other week.

0101	Clarence Wesley TuTh 11:00am - 12:15pm Class time/details on ELMs	Seats (Total: 43) CHE 2136 ONLINE
SG91	Jun Han MW 9:30am - 10:45am Class time/details on ELMs	Seats (Total: 60) BLD2 3062 ONLINE

BMGT468P **Special Topics in Management and Organization; Practicum in Global Business**

Credits: 3 Grading Method: Regular, Pass-Fail

Selected advanced topics in management and organization.

Restricted to students in the Smith School's Global Fellows Program.

FP01	Roy Thomason, Mark Wellman TuTh 6:00pm - 7:15pm	Seats (Total: 30) ESJ 1309

BMGT468R **Special Topics in Management and Organization; Fearless Founders: New Venture Practicum**

(Perm req)

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Selected advanced topics in management and organization.

Restriction: Permission of BMGT-Robert H. Smith School of Business. Cross-listed with ENES498R. Credit granted for ENES498R or BMGT468R.

0101	Oliver Schlake M 5:00pm - 7:40pm	Seats (Total: 25) VMH 3330H

BMGT468T **Special Topics in Management and Organization; Creativity for Business Leaders and Entrepreneurs Outdoor Edition**

Credits: 3 Grading Method: Regular, Pass-Fail

Selected advanced topics in management and organization.

Restricted to students with 45 credit hours completed. Course requires participation in activities outside the scheduled meeting time, including site visits to Under Armour and in the outdoors.

0101	Oliver Schlake Tu 12:30pm - 1:45pm Contact instructor or department for details.	Seats (Total: 35) ARC 1105

BMGT468U **Special Topics in Management and Organization; Fearless Founders: Social Entrepreneurship Laboratory**

Credits: 3 Grading Method: Regular, Pass-Fail

Selected advanced topics in management and organization.

Restricted to students with 45 credits earned.

0101	Andrew Bewick W 7:00pm - 9:40pm	Seats (Total: 30) VMH 1411

BMGT468W **Special Topics in Management and Organization; Social Innovation Practicum: Consulting and Venture Creation**

Credits: 3 Grading Method: Regular, Pass-Fail

Selected advanced topics in management and organization.

Restricted to Social Innovation Fellows.

FP01	Tricia Homer M 6:30pm - 9:10pm	Seats (Total: 35) VMH 1307

BMGT472 **Purchasing and Inbound Logistics**

Credits: 3 Grading Method: Regular, Pass-Fail

Prerequisite: BMGT372.

Analysis of the resupply activities of logistics management, including purchasing policies, transportation planning, and inventory control. Attention is directed toward total cost minimization and the establishment of a sustainable competitive advantage based on procurement.

Restricted to Supply Chain Management majors.

0101	Mary Wagner MW 9:30am - 10:45am	Seats (Total: 35) VMH 1311

BMGT476 **Technology Applications in Supply Chain Management**

Credits: 3 Grading Method: Regular, Pass-Fail

Prerequisite: BMGT372.

An understanding of the role of technology in managing the supply chain. Provides students with hands-on experience in advanced software systems that build on top of enterprise resource planning systems. Major emphasis is placed on demonstrating that these systems result in supply chain cost reductions and service improvements.

Restricted to Supply Chain Management and Information Systems majors.

0101	Hongyi Zhang MW 2:00pm - 3:15pm	Seats (Total: 24) VMH 3522
0201	Hongyi Zhang MW 3:30pm - 4:45pm	Seats (Total: 24) VMH 3522

0301	Hongyi Zhang MW 11:00am - 12:15pm	Seats (Total: 24) VMH 3522

BMGT477 **International Supply Chain Management**

Credits: 3 Grading Method: Regular, Pass-Fail

The study of the importance of the supply chain management within a global context. Topics covered include: the structure, service, pricing and competitive relationships among international carriers and transport intermediaries as well as documentation, location decisions, international sourcing/distribution and management of inventory throughout the international supply chain.

0101	Koki Nagata TuTh 9:30am - 10:45am *Restricted to Supply Chain Management majors and International Business majors.*	Seats (Total: 40) VMH 1206
0201	Koki Nagata TuTh 11:00am - 12:15pm *Restricted to Supply Chain Management majors and International Business majors.*	Seats (Total: 40) VMH 1206

BMGT478C **Special Topics in Supply Chain Management; Supply Chain Risk Management**

Credits: 3 Grading Method: Regular, Pass-Fail

Selected advanced topics in supply chain management.

Restricted to Supply Chain Management majors.

0101	Leland Gardner MW 12:30pm - 1:45pm	Seats (Total: 45) VMH 1206

BMGT478D **Special Topics in Supply Chain Management; Applied Research in Intermodal Transportation and Logistics**

(Perm req)

Credits: 3 Grading Method: Regular, Pass-Fail

Selected advanced topics in supply chain management.

Restricted to students in the Supply Chain Management Fellows program.

FP01	Thomas Corsi, Dianne Fox W 6:30pm - 9:10pm	Seats (Total: 35) VMH 1335

BMGT484 **Digital Marketing**

Credits: 3 Grading Method: Regular, Pass-Fail

Prerequisite: BMGT350. Restriction: Must be in a major in BMGT-Robert H. Smith School of Business.

Examines the process of developing, implementing, and analyzing strategies for successfully marketing a variety of existing and potential products and services through digital means, including the web, social media, and mobile apps. Both the development and analysis of digital media for marketing will be discussed.

0101	Mary Harms TuTh 11:00am - 12:15pm *Restricted to BMGT majors with 60 credit hours completed.*	Seats (Total: 45) VMH 3505
0201	Mary Harms TuTh 2:00pm - 3:15pm *estricted to BMGT majors with 60 credit hours completed.*	Seats (Total: 45) VMH 3505
0301	Mary Harms TuTh 9:30am - 10:45am *Restricted to BMGT majors with 60 credit hours completed.*	Seats (Total: 45) VMH 3505
SG91	Jin-Hee Huh TuTh 9:30am - 10:45am *Restricted to Shady Grove students only.*	Seats (Total: 40) BLD1 0206

BMGT485 **Project Management**

Credits: 3 Grading Method: Regular, Pass-Fail

Prerequisite: BMGT231 or BMGT230; or students who have taken courses with comparable content may contact the department. Restriction: Must be in a major in BMGT-Robert H. Smith School of Business.

Modern project management techniques that are used by modern practicing professionals will be covered. Particular attention is given to the management of technology based systems and projects in a business enterprise. The topics covered include: defining project scope, alignment of projects with enterprise strategy, managing project cost, time and risks using tools such as CPM/PERT, and measuring project performance.

Restricted to BMGT majors and QUEST program students with 72 credit hours completed.

0101	Maria Bardossy MW 2:00pm - 3:15pm	Seats (Total: 45) VMH 1524
0201	Maria Bardossy MW 12:30pm - 1:45pm	Seats (Total: 45) VMH 1415

BMGT490H **QUEST Capstone Professional Practicum**

Credits: 4 | Grading Method: Regular, Pass-Fail | General Education: DSSP

Prerequisite: ENES390 or BMGT390. Cross-listed with: ENES490. Credit only granted for: BMGT490 or ENES490.

The capstone course for the QUEST Honors Program provides students with an opportunity to learn in multidisciplinary teams of business, engineering, and science students in a real-world setting. Companies engage teams of QUEST students with real organizational challenges and dedicate resources to help students address these problems. Student teams must enhance their skills in quality management, process improvement, and systems design and will apply these to add value to a client. In the process, students will improve their teamwork skills.

Restricted to QUEST program students. Cross-listed with ENES490H. Credit granted for ENES490H or BMGT490H.

0101	David Ashley, Joseph Bailey, James Purtilo W 5:00pm - 7:40pm Contact instructor or department for details.	Seats (Total: 45) VMH 1415

BMGT491 **Scoping Experiential Learning Projects**

Credits: 3 | Grading Method: Regular, Pass-Fail, Audit

Prerequisite: BMGT190 or ENES190. Restriction: Restricted to QUEST Program (TQMP) students. Cross-listed with ENES491. Credit only granted for: BMGT491 or ENES491.

QUEST students cultivate relationships with new and current corporate partners and prepare project scopes for QUEST's introductory course, BMGT/ENES 190H, and capstone course, BMGT/ENES 490H. Requires independent work communicating with clients and class visits to a variety of potential project sites.

Restricted to QUEST program students. Cross-listed with ENES491. Credit granted for BMGT491 or ENES491.

0101	Jessica Roffe F 10:00am - 12:40pm	Seats (Total: 9) VMH 1407

BMGT494H **Honors Study**

(Perm req)

Credits: 3 Grading Method: Regular, Pass-Fail

Prerequisite: BMGT493. Restriction: Permission of BMGT-Robert H. Smith School of Business; and must be in the Smith School Honors Fellows program.

Second semester of the senior year. The student shall continue and complete the research initiated in BMGT 493, additional reports may be required at the discretion of the faculty advisor and Assistant Dean of Undergraduate Studies.

Restricted to BMGT Honors students.

0101	Charles Olson	Seats (Total: 25)
	Contact instructor or department for details.	

BMGT495 **Strategic Management**

Credits: 3 Grading Method: Regular, Pass-Fail CORE: CS General Education: DSSP

A case-based course where students learn to play the role of the "strategic manager" who defines the scope of its business operations and, within the chosen scope, how the firm will compete against rivals. This course focuses on how a firm can both formulate effective business-level and corporate-level strategies to achieve competitive advantage and earn above average profits.

0101	Liyue Yan	Seats (Total: 40)
	MW 9:30am - 10:45am	VMH 1418
	Restricted to BMGT majors with 60 credit hours completed.	
0201	Protiti Dastidar	Seats (Total: 40)
	MW 12:30pm - 1:45pm	VMH 1202
	Restricted to BMGT majors with 60 credit hours completed.	
0301	Clarence Wesley	Seats (Total: 40)
	MW 2:00pm - 3:15pm	VMH 1202
	Restricted to BMGT majors with 60 credit hours completed.	
0401	Clarence Wesley	Seats (Total: 40)
	MW 3:30pm - 4:45pm	VMH 1202
	Restricted to BMGT majors with 60 credit hours completed.	

0501	Najoung Lim MW 5:00pm - 6:15pm *Restricted to BMGT majors with 60 credit hours completed.*	Seats (Total: 40) VMH 1202
0601	Benjamin King TuTh 9:30am - 10:45am *Restricted to BMGT majors with 60 credit hours completed.*	Seats (Total: 40) VMH 1202
0701	Waverly Ding TuTh 11:00am - 12:15pm *Restricted to BMGT majors with 60 credit hours completed.*	Seats (Total: 40) VMH 1202
0801	Waverly Ding TuTh 12:30pm - 1:45pm *Restricted to BMGT majors with 60 credit hours completed.*	Seats (Total: 40) VMH 1202
0901	Waverly Ding TuTh 2:00pm - 3:15pm *Restricted to BMGT majors with 60 credit hours completed.*	Seats (Total: 40) VMH 1202
1001	David Kressler TuTh 3:30pm - 4:45pm *Restricted to BMGT majors with 60 credit hours completed.*	Seats (Total: 40) VMH 1202
1101	Liyue Yan TuTh 5:00pm - 6:15pm *Restricted to BMGT majors with 60 credit hours completed.*	Seats (Total: 40) VMH 1202
SG92	Qing Zhao MW 11:00am - 12:15pm	Seats (Total: 50) BLD2 2032
SG93	Qing Zhao MW 12:30pm - 1:45pm	Seats (Total: 50) BLD2 2032

Restricted to BMGT Honors students with 100 credit hours completed.

BMGT495H **Strategic Management**

(Perm req) | Credits: 3 | Grading Method: Regular, Pass-Fail | CORE: CS | General Education: DSSP

A case-based course where students learn to play the role of the "strategic manager" who defines the scope of its business operations and, within the chosen scope, how the firm will compete against rivals. This course focuses on how a firm can both formulate effective business-level and corporate-level strategies to achieve competitive advantage and earn above average profits.

0101	Paulo Prochno	Seats (Total: 35)
	TuTh 2:00pm - 3:15pm	VMH 1311

BMGT495M **Strategic Management**

Credits: 3 | Grading Method: Regular, Pass-Fail | CORE: CS | General Education: DSSP

A case-based course where students learn to play the role of the "strategic manager" who defines the scope of its business operations and, within the chosen scope, how the firm will compete against rivals. This course focuses on how a firm can both formulate effective business-level and corporate-level strategies to achieve competitive advantage and earn above average profits.

Restricted to General Business minors.

0101	Protiti Dastidar	Seats (Total: 60)
	MW 2:00pm - 3:15pm	TYD 2109
	Class time/details on ELMs	ONLINE

BMGT498L **Special Topics in Business and Management; Innovo Consulting Practicum: Transform Learning**

(Perm req)

Credits: 3 | Grading Method: Regular, Pass-Fail

Special topics in business and management designed to meet the changing needs and interests of students and faculty.

Innovo Scholars is a new program offering an elite group of students the opportunity to particpate in the innovation of teaching and learning at Smith. In addition to completing normal teaching assistant activities, the Scholars will be responsible for designing and implementing improvements to an existing Smith course or program.

0101	Nicholas Gummo, Jonathan Southgate	Seats (Total: 20)
	Th 5:00pm - 6:50pm	SQH 4111
	Contact instructor or department for details.	

BMGT808B **Special Topics in Information Systems; Special Topics - IS PhD Seminar: Behavioral Research in Information Systems**

Credits: 2 | Grading Method: Regular, Audit, Sat-Fail

Special topics specific to the Information Systems doctoral field of study.

0101	Jui Ramaprasad	Seats (Total: 12)
	Meets March 23, 2020 - May 8, 2020	
	Contact instructor or department for details.	

BMGT808D **Special Topics in Information Systems; Information Systems Economics I**

Credits: 2 Grading Method: Regular, Audit, Sat-Fail

Special topics specific to the Information Systems doctoral field of study.

0101	Sivakumar Viswanathan	Seats (Total: 12)
	Meets January 21, 2020 - March 9, 2020	
	Th 1:00pm - 4:35pm	VMH 4535

BMGT808E **Special Topics in Information Systems; Information Systems Economics II**

Credits: 2 Grading Method: Regular, Audit, Sat-Fail

Special topics specific to the Information Systems doctoral field of study.

0101	Il-Horn Hann	Seats (Total: 12)
	Meets March 23, 2020 - May 8, 2020	
	Contact instructor or department for details.	

BMGT808R **Special Topics in Information Systems; Research Seminar in Decision, Operations and Information Technologies**

Credits: 1 Grading Method: Regular, Audit, Sat-Fail

Special topics specific to the Information Systems doctoral field of study.

0101	Sivakumar Viswanathan	Seats (Total: 15)
	F 2:00pm - 3:30pm	VMH 1415

BMGT818B **Special Topics in Accounting and Information Assurance; Topics in Financial Accounting**

Credits: 3 Grading Method: Regular, Audit, Sat-Fail

Special topics specific to the Accounting and Information Assurance doctoral field of study.

0101	Musa Subasi	Seats (Total: 12)
	Contact instructor or department for details.	

BMGT818R **Special Topics in Accounting and Information Assurance; Workshop in Accounting Research**

Credits: 1 Grading Method: Regular, Audit, Sat-Fail

Special topics specific to the Accounting and Information Assurance doctoral field of study.

0101	Lawrence Gordon	Seats (Total: 12)
	Contact instructor or department for details.	

BMGT828 **Independent Study in Business and Management**

Credits: 1-9 Grading Method: Regular, Sat-Fail

Contact department for information to register for this course.

BMGT838A **Special Topics in Operations Management/Management Science; Economics of Operations Management**

Credits: 2 Grading Method: Regular, Audit, Sat-Fail

Special topics specific to the Operations Management/Management Science doctoral field of study.

0101	Tunay Tunca	Seats (Total: 12)
	Contact instructor or department for details.	

BMGT838E **Special Topics in Operations Management/Management Science; STOCHASTIC OPTIMIZATION**

Credits: 3 Grading Method: Regular, Audit, Sat-Fail

Special topics specific to the Operations Management/Management Science doctoral field of study.

0101	Ilya Ryzhov	Seats (Total: 20)
	M 12:30pm - 3:10pm	VMH 2509

BMGT838O **Special Topics in Operations Management/Management Science; OPERATIONS MANAGEMENT**

Credits: 3 Grading Method: Regular, Audit, Sat-Fail

Special topics specific to the Operations Management/Management Science doctoral field of study.

0101	Wedad Elmaghraby	Seats (Total: 12)
	W 12:30pm - 3:10pm	VMH 4534

BMGT838R **Special Topics in Operations Management/Management Science; Research Seminar in Decision, Operations and Information Technologies**

Credits: 1 Grading Method: Regular, Audit, Sat-Fail

Special topics specific to the Operations Management/Management Science doctoral field of study.

0101	Zhi-Long Chen	Seats (Total: 15)
	F 2:00pm - 3:30pm	VMH 1415

BMGT841 **Seminar in Corporate Finance**

Credits: 3 Grading Method: Regular, Audit, Sat-Fail

Prerequisite: Permission of BMGT-Robert H. Smith School of Business.

Seminar in selected classic and current theoretical and empirical research in corporate finance.

0101	Richmond Mathews, Maria Bustamante	Seats (Total: 12)
	W 1:30pm - 5:00pm	VMH 4335

BMGT848F **Special Topics in Finance; Workshop in Finance Research**

Credits: 1 Grading Method: Regular, Audit, Sat-Fail

Special topics specific to the Finance doctoral field of study.

0101	Maria Bustamante, Pablo Slutzky	Seats (Total: 12)
	F 10:00am - 12:00pm	VMH 1335

BMGT848T **Special Topics in Finance; Topics in Industrial Organization and Financial Economics**

Credits: 2 Grading Method: Regular, Audit, Sat-Fail

Special topics specific to the Finance doctoral field of study.

0101	Maria Bustamante	Seats (Total: 12)
	Meets January 21, 2020 - March 9, 2020	
	W 9:00am - 12:35pm	VMH 4535

BMGT858C **Special Topics in Marketing; Consumer Behavior**

Credits: 3 Grading Method: Regular, Audit, Sat-Fail

Special topics specific to the Marketing doctoral field of study.

0101	Amna Khawaja	Seats (Total: 12)
	Contact instructor or department for details.	

BMGT858L **Special Topics in Marketing; Marketing Strategy**

Credits: 3 Grading Method: Regular, Audit, Sat-Fail

Special topics specific to the Marketing doctoral field of study.

0101	Roland Rust	Seats (Total: 12)
	Contact instructor or department for details.	

BMGT858R **Special Topics in Marketing; Marketing Research Seminar**

Credits: 1 Grading Method: Regular, Audit, Sat-Fail

Special topics specific to the Marketing doctoral field of study.

0101	Ali Faraji-Rad	Seats (Total: 16)
	F 10:00am - 12:30pm	VMH 1415

BMGT868C **Special Topics in Organizational Behavior/Human Resource Management; Career and Professionalization Workshop in Management and Organization**

Credits: 1 Grading Method: Regular, Audit, Sat-Fail

Special topics specific to the Organizational Behavior/Human Resource Management doctoral field of study.

0101	David Waguespack	Seats (Total: 30)
	F 12:30pm - 2:00pm	VMH 1335

BMGT868E **Special Topics in Organizational Behavior/Human Resource Management; Special Topics in Emotions in Organizations**

Credits: 2

Grading Method: Regular, Audit, Sat-Fail

Special topics specific to the Organizational Behavior/Human Resource Management doctoral field of study.

0101	Myeong-Gu Seo	Seats (Total: 12)
	Meets January 21, 2020 - March 9, 2020	
	Tu 9:00am - 12:35pm	VMH 4335

BMGT868G **Special Topics in Organizational Behavior/Human Resource Management; Multilevel Modeling**

Credits: 1

Grading Method: Regular, Audit, Sat-Fail

Special topics specific to the Organizational Behavior/Human Resource Management doctoral field of study.

0101	Gilad Chen	Seats (Total: 12)
	Meets April 6, 2020 - April 20, 2020	
	M 8:30am - 12:40pm	VMH 4534

BMGT868P **Special Topics in Organizational Behavior/Human Resource Management; Organizational Behavior and Human Resource Management Presentations**

Credits: 1

Grading Method: Regular, Audit, Sat-Fail

Special topics specific to the Organizational Behavior/Human Resource Management doctoral field of study.

0101	Vijaya Venkataramani	Seats (Total: 10)
	Meets January 27, 2020 - May 12, 2020	
	W 11:00am - 12:15pm	VMH 2509

BMGT868X **Special Topics in Organizational Behavior/Human Resource Management; Social Psychological Foundations**

Credits: 2

Grading Method: Regular, Audit, Sat-Fail

Special topics specific to the Organizational Behavior/Human Resource Management doctoral field of study.

0101	Jennifer Marr	Seats (Total: 12)
	Meets March 23, 2020 - May 8, 2020	
	Tu 9:00am - 12:35pm	VMH 4335

BMGT878C **Special Topics in Strategic Management and Entrepreneurship; Cross Discilpinary Workshop in Strategy and Entrepreneurship**

Credits: 1

Grading Method: Regular, Audit, Sat-Fail

Special topics specific to the Strategic Management and Entrepreneurship doctoral field of study.

0101	Rachelle Sampson	Seats (Total: 12)
	Th 11:00am - 12:30pm	VMH 3330H

BMGT878E **Special Topics in Strategic Management and Entrepreneurship; Overview of Strategy & Entrepreneurship**

Credits: 2

Grading Method: Regular, Audit, Sat-Fail

Special topics specific to the Strategic Management and Entrepreneurship doctoral field of study.

0101	Instructor: TBA	Seats (Total: 12)
	Meets January 21, 2020 - March 9, 2020	
	W 2:00pm - 5:35pm	VMH 4568

BMGT878J **Special Topics in Strategic Management and Entrepreneurship; Entrepreneurial Ecosystems**

Credits: 1

Grading Method: Regular, Audit, Sat-Fail

Special topics specific to the Strategic Management and Entrepreneurship doctoral field of study.

0101	Anil Gupta	Seats (Total: 12)
	Meets March 23, 2020 - May 8, 2020	
	M 1:00pm - 4:35pm	VMH 3330H

BMGT878O **Special Topics in Strategic Management and Entrepreneurship; Organizational Economics**

Credits: 2

Grading Method: Regular, Audit, Sat-Fail

Special topics specific to the Strategic Management and Entrepreneurship doctoral field of study.

0101	Ryan Cooper	Seats (Total: 12)
	Meets March 23, 2020 - May 8, 2020	
	Tu 9:00am - 12:35pm	VMH 3330H

BMGT878P **Special Topics in Strategic Management and Entrepreneurship; Strategy and Entrepreneurship PhD Presentations**

Credits: 1 Grading Method: Regular, Audit, Sat-Fail

Special topics specific to the Strategic Management and Entrepreneurship doctoral field of study.

0101	Rajshree Agarwal	Seats (Total: 30)
	Th 9:15am - 10:45am	VMH 3330H

BMGT878Q **Special Topics in Strategic Management and Entrepreneurship; Qualitative Methods**

Credits: 1 Grading Method: Regular, Audit, Sat-Fail

Special topics specific to the Strategic Management and Entrepreneurship doctoral field of study.

0101	Adina Dabu	Seats (Total: 12)
	Meets March 23, 2020 - May 8, 2020	
	Th 1:00pm - 4:35pm	VMH 3330H

BMGT888W **Special Topics in Supply Chain Management; Workshop in Supply Chain Management**

Credits: 1 Grading Method: Regular, Sat-Fail

Special topics specific to the Supply Chain Management doctoral field of study.

0101	Martin Dresner	Seats (Total: 10)
	F 1:00pm - 2:30pm	VMH 3332

BMGT898 **Pre-Candidacy Research**

Credits: 1-8 Grading Method: Regular, Sat-Fail

Contact department for information to register for this course.

BMGT899 **Doctoral Dissertation Research**

(Perm req) Credits: 6 Grading Method: Sat-Fail

Contact department for information to register for this course.

BSCI Biological Sciences Program Spring 2020

BSCI courses are offered by the Biological Science Program and individual College of Computer, Mathematical and Natural Sciences departments, as indicated. The sponsoring department for each course is provided in the course listing. Consult the sponsoring department if you have questions about an individual course (sponsoring departments BIOL - Department of Biology, 2227 Biol-Psyc Building; BSCI - Biological Sciences Program, 1322 Symons Hall; CBMG - Department of Cell Biology and Molecular Genetics, 1219 H.J. Patterson Building; ENTM - Entomology, 4112 PLS Building). Registration in course sections which begin with "SES" is restricted to students admitted into the Science in the Evening Program, administered through the Office of Extended Studies. For complete information, visit: http://oes.umd.edu/index.php?slab=sie, e-mail oes@umd.edu , or call 301-405-7762. The following courses may involve the use of animals. Students who are concerned about the use of animals in teaching have the responsibility to consult the instructor prior to course enrollment to determine whether animals are to be used in the course, whether class exercises involving animals are optional or required, and what alternatives, if any, are available. The College of Computer, Mathematical, and Natural Sciences enforces course prerequisites. Students who do not meet the course prerequisites will be administratively dropped from the course.*

BSCI103 The World of Biology

Credits: 4 Grading Method: Regular, Pass-Fail CORE: LL General Education: DSNL

Additional information: Not acceptable for degree requirements in Biological Sciences, Chemistry, or Biochemistry.

An introduction to modern biology for the non-science major. Major themes include molecular biology, cell biology, evolution and organismal biology. Relevance of study of biology to modern human life will be emphasized.

(Sponsoring Dept.: BSCI). Students must pay a $40.00 laboratory materials fee.

1100	Tammatha O'Brien, Anahi Espindola TuTh 12:30pm - 1:45pm M 8:00am - 10:50am	Seats (Total: 24) ESJ 0224 HJP 3239	 Lab
1101	Tammatha O'Brien, Anahi Espindola TuTh 12:30pm - 1:45pm M 11:00am - 1:50pm	Seats (Total: 24) ESJ 0224 HJP 3239	 Lab
1103	Tammatha O'Brien, Anahi Espindola TuTh 12:30pm - 1:45pm M 2:00pm - 4:50pm	Seats (Total: 24) ESJ 0224 HJP 3239	 Lab

1105	Tammatha O'Brien, Anahi Espindola TuTh 12:30pm - 1:45pm M 5:00pm - 7:50pm	Seats (Total: 24) ESJ 0224 HJP 3239	Lab
1107	Anahi Espindola, Tammatha O'Brien TuTh 12:30pm - 1:45pm Tu 8:00am - 10:50am	Seats (Total: 24) ESJ 0224 HJP 3239	Lab
1108	Tammatha O'Brien, Anahi Espindola TuTh 12:30pm - 1:45pm Tu 2:00pm - 4:50pm	Seats (Total: 24) ESJ 0224 HJP 3239	Lab
1109	Anahi Espindola, Tammatha O'Brien TuTh 12:30pm - 1:45pm Tu 5:00pm - 7:50pm	Seats (Total: 24) ESJ 0224 HJP 3239	Lab

BSCI103M **The World of Biology**

(Perm req)

Credits: 4 | Grading Method: Regular, Pass-Fail | CORE: LL | General Education: DSNL

Additional information: Not acceptable for degree requirements in Biological Sciences, Chemistry, or Biochemistry.

An introduction to modern biology for the non-science major. Major themes include molecular biology, cell biology, evolution and organismal biology. Relevance of study of biology to modern human life will be emphasized.

(Sponsoring Dept.: BSCI). Must be taken within 12 months of the semester in which BSCI 103 is taken. A student is eligible to take this course only if the lab scores received in BSCI 103 the last time it was taken totalled at least 80 percent of the maximum possible total. These scores will count for part of the grade in BSCI 103M.

0101	Instructor: TBA TuTh 12:30pm - 1:45pm Contact instructor or department for details.	Seats (Total: 5) Location: TBA	

BSCI120 **Insects**

Credits: 3 | Grading Method: Regular, Pass-Fail, Audit | CORE: LS | General Education: DSNS

A survey of the major groups of insects, their natural history, and their relationships with humans and their environment. Course not acceptable toward major requirements in Biological Sciences, Chemistry or Biochemistry.

(Sponsoring Dept.: ENTM).

0101	Anthony Nearman, Cerruti Hooks, Dennis vanEngelsdorp Tu 2:00pm - 2:50pm Class time/details on ELMs Th 12:00pm - 12:50pm	Seats (Total: 21) PLS 1119 ONLINE PLS 1161	 Discussion
0102	Cerruti Hooks, Anthony Nearman, Dennis vanEngelsdorp Tu 2:00pm - 2:50pm Class time/details on ELMs Th 11:00am - 11:50am	Seats (Total: 21) PLS 1119 ONLINE PLS 1161	 Discussion

BSCI124 **Plant Biology for Non-Science Students**

Credits: 3 | Grading Method: Regular, Pass-Fail, Audit | General Education: DSNL (if taken with BSCI125)

Restriction: For non-science majors only; and must not have completed BSCI105; and must not have completed BSCI170 or BSCI171. Additional information: CORE Life Sciences Lab (LL) Course only when taken concurrently with BSCI 125.

A basic course in plant biology specifically designed for the non-science student. Emphasis is placed on an evolutionary and ecological approach to studying fundamental concepts and processes of plants, their place in the biosphere, the importance of plants to man, and the manner in which humans impact on plants and their environment. This course will not count toward graduation requirements for any student in Biological Sciences, Chemistry, Biochemistry or the College of Agriculture and Natural Resources.

(Sponsoring Dept.: CBMG). CORE Life Sciences Lab (LL) Course only when taken concurrently with BSCI125.

1001	Edgar Moctezuma TuTh 2:00pm - 3:15pm	Seats (Total: 220) HJP 0226

BSCI125 **Plant Biology Laboratory**

Credits: 1 | Grading Method: Regular, Pass-Fail, Audit

Corequisite: BSCI124. Restriction: For non-science majors only; and must not have completed BSCI105; and must not have completed BSCI170 or BSCI171. Credit only granted for: BSCI105, BSCI170, or BSCI125. Additional information: CORE Life Sciences Lab (LL) Course only when taken concurrently with BSCI 125.

An introduction to the biology of plants with emphasis on the processes by which plants function, the diversity of plants, and the importance of plants to humans. This course will not count toward graduation requirements for any student in Biological Sciences, Chemistry, Biochemistry or the College of Agriculture and Natural Resources. CORE Lab Science.

(Sponsoring Dept.: CBMG). CORE Life Sciences Lab (LL) Course only when taken concurrently with BSCI 124. Students must pay a $40.00 laboratory materials fee.

1104	Edgar Moctezuma M 12:00pm - 2:00pm	Seats (Total: 24) HJP 3237	Lab
1106	Edgar Moctezuma M 3:00pm - 5:00pm	Seats (Total: 24) HJP 3237	Lab
1107	Edgar Moctezuma Tu 11:00am - 1:00pm	Seats (Total: 24) HJP 3237	Lab
1110	Edgar Moctezuma Tu 3:30pm - 5:30pm	Seats (Total: 24) HJP 3237	Lab
1111	Edgar Moctezuma W 9:00am - 11:00am	Seats (Total: 24) HJP 3237	Lab
1114	Edgar Moctezuma W 12:00pm - 2:00pm	Seats (Total: 24) HJP 3237	Lab
1116	Edgar Moctezuma W 3:00pm - 5:00pm	Seats (Total: 24) HJP 3237	Lab
1118	Edgar Moctezuma Th 11:00am - 1:00pm	Seats (Total: 24) HJP 3237	Lab

BSCI160 **Principles of Ecology and Evolution**

Credits: 3 | Grading Method: Regular, Pass-Fail, Audit | General Education: DSNL (if taken with BSCI161), DSNS

Prerequisite: Must have math eligibility of MATH120 or higher. Recommended: For Science majors. Credit only granted for: BSCI106 or BSCI160. Formerly: BSCI106.

Basic principles of biology with special emphasis on ecological and evolutionary biology.

(Sponsoring Dept.: BSCI).

6101	Marjorie Reaka TuTh 2:00pm - 3:15pm	Seats (Total: 120) BRB 1101	
6201	Marcia Shofner TuTh 9:30am - 10:45am	Seats (Total: 120) ESJ 1224	
6301	Marcia Shofner TuTh 12:30pm - 1:45pm	Seats (Total: 120) ESJ 1224	

BSCI161 **Principles of Ecology and Evolution Lab**

Credits: 1 Grading Method: Regular, Pass-Fail

Prerequisite: Must have math eligibility of MATH120 or higher. Corequisite: BSCI160. Recommended: For Science majors.

Basic laboratory principles of biology with special emphasis on ecological and evolutionary biology.

(Sponsoring Dept.: BSCI). Students must pay a $40.00 laboratory materials fee.

6104	Leo Shapiro M 10:00am - 12:50pm	Seats (Total: 23) HJP 3211	Lab
6107	Leo Shapiro M 3:00pm - 5:50pm	Seats (Total: 23) HJP 3211	Lab
6108	Leo Shapiro M 3:00pm - 5:50pm	Seats (Total: 23) HJP 3217	Lab
6204	Leo Shapiro Tu 10:00am - 12:50pm	Seats (Total: 23) HJP 3211	Lab
6207	Leo Shapiro Tu 2:00pm - 4:50pm	Seats (Total: 23) HJP 3211	Lab
6210	Leo Shapiro Tu 5:00pm - 7:50pm	Seats (Total: 23) HJP 3211	Lab
6211	Leo Shapiro Tu 5:00pm - 7:50pm	Seats (Total: 23) HJP 3217	Lab

6304	Leo Shapiro W 11:00am - 1:50pm	Seats (Total: 23) HJP 3211	Lab
6305	Leo Shapiro W 10:00am - 12:50pm	Seats (Total: 23) HJP 3217	Lab
6307	Leo Shapiro W 2:00pm - 4:50pm	Seats (Total: 23) HJP 3211	Lab
6308	Leo Shapiro W 2:00pm - 4:50pm	Seats (Total: 23) HJP 3217	Lab
6404	Leo Shapiro Th 11:00am - 1:50pm	Seats (Total: 23) HJP 3211	Lab
6407	Leo Shapiro Th 2:00pm - 4:50pm	Seats (Total: 23) HJP 3211	Lab
6410	Leo Shapiro Th 5:00pm - 7:50pm	Seats (Total: 23) HJP 3211	Lab

BSCI170 **Principles of Molecular & Cellular Biology**

Credits: 3 | Grading Method: Regular, Pass-Fail, Audit | General Education: DSNL (if taken with BSCI171), DSNS

Prerequisite: Must have math eligibility of MATH120 or higher. Recommended: For Science majors. Credit only granted for: BSCI105 or BSCI170. Formerly: BSCI105.

Basic principles of biology with special emphasis on cellular and molecular biology.

(Sponsoring Dept.: BSCI).

0101	Michael Keller MWF 11:00am - 11:50am	Seats (Total: 225) ESJ 0224	
0201	Patricia Shields MWF 9:00am - 9:50am	Seats (Total: 225) ESJ 0224	
0301	Reid Compton TuTh 9:30am - 10:45am	Seats (Total: 225) ESJ 0224	

0401	Michael Keller MWF 1:00pm - 1:50pm	Seats (Total: 225) ESJ 0224
SES1	James Sniezek Tu 6:00pm - 8:50pm	Seats (Total: 24) PLS 1130
	Restricted to students in the SIE Program. Click here for more information.	

BSCI170C **Principles of Molecular & Cellular Biology**

Credits: 3 | Grading Method: Regular, Pass-Fail, Audit | General Education: DSNL (if taken with BSCI171), DSNS

Prerequisite: Must have math eligibility of MATH120 or higher. Recommended: For Science majors. Credit only granted for: BSCI105 or BSCI170. Formerly: BSCI105.

Basic principles of biology with special emphasis on cellular and molecular biology.

(Sponsoring Dept.: BSCI). Restricted to BSCI, CHEM and BCHM majors.

0101	Anne Simon MWF 10:00am - 10:50am	Seats (Total: 100) BPS 1243

BSCI170H **Principles of Molecular & Cellular Biology**

Credits: 3 | Grading Method: Regular, Pass-Fail, Audit | General Education: DSNL (if taken with BSCI171), DSNS

Prerequisite: Must have math eligibility of MATH120 or higher. Recommended: For Science majors. Credit only granted for: BSCI105 or BSCI170. Formerly: BSCI105.

Basic principles of biology with special emphasis on cellular and molecular biology.

(Sponsoring Dept: BSCI).

0101	Anne Simon MWF 10:00am - 10:50am	Seats (Total: 100) BPS 1243

BSCI171 **Principles of Molecular & Cellular Biology Laboratory**

Credits: 1 | Grading Method: Regular, Pass-Fail

Prerequisite: Must have math eligibility of MATH120 or higher. Corequisite: BSCI170. Recommended: For Science majors.

Basic laboratory principles of biology with special emphasis on cellular and molecular biology.

(Sponsoring Dept.: BSCI). Students must pay a $40.00 laboratory materials fee.

1021	Swarna Mohan M 11:00am - 1:50pm	Seats (Total: 24) CHM 1110	Lab
1023	Swarna Mohan M 11:00am - 1:50pm	Seats (Total: 24) CHM 1112	Lab
1031	Swarna Mohan M 2:00pm - 4:50pm	Seats (Total: 24) CHM 1110	Lab
1032	Swarna Mohan M 2:00pm - 4:50pm	Seats (Total: 24) CHM 1111	Lab
1033	Swarna Mohan M 2:00pm - 4:50pm	Seats (Total: 24) CHM 1112	Lab
1034	Swarna Mohan M 2:00pm - 4:50pm	Seats (Total: 24) CHM 1128	Lab
1043	Swarna Mohan M 5:00pm - 7:50pm	Seats (Total: 24) CHM 1112	Lab
2021	Swarna Mohan Tu 11:00am - 1:50pm	Seats (Total: 24) CHM 1110	Lab
2022	Swarna Mohan Tu 11:00am - 1:50pm	Seats (Total: 24) CHM 1111	Lab
2023	Swarna Mohan Tu 11:00am - 1:50pm	Seats (Total: 24) CHM 1112	Lab
2024	Swarna Mohan Tu 11:00am - 1:50pm	Seats (Total: 23) CHM 1128	Lab
2031	Swarna Mohan Tu 2:00pm - 4:50pm	Seats (Total: 24) CHM 1110	Lab
2033	Swarna Mohan Tu 2:00pm - 4:50pm	Seats (Total: 24) CHM 1112	Lab

2034	Swarna Mohan Tu 2:00pm - 4:50pm	Seats (Total: 24) CHM 1128	Lab
2041	Swarna Mohan Tu 6:00pm - 8:50pm	Seats (Total: 24) CHM 1110	Lab
2042	Swarna Mohan Tu 6:00pm - 8:50pm	Seats (Total: 24) CHM 1111	Lab
3021	Swarna Mohan W 10:00am - 12:50pm	Seats (Total: 24) CHM 1110	Lab
3022	Swarna Mohan W 10:00am - 12:50pm	Seats (Total: 24) CHM 1111	Lab
3031	Swarna Mohan W 2:00pm - 4:50pm	Seats (Total: 24) CHM 1110	Lab
3032	Swarna Mohan W 2:00pm - 4:50pm	Seats (Total: 24) CHM 1111	Lab
3033	Swarna Mohan W 2:00pm - 4:50pm	Seats (Total: 24) CHM 1112	Lab
3034	Swarna Mohan W 2:00pm - 4:50pm	Seats (Total: 24) CHM 1128	Lab
3041	Swarna Mohan W 5:00pm - 7:50pm	Seats (Total: 24) CHM 1110	Lab
3043	Swarna Mohan W 5:00pm - 7:50pm	Seats (Total: 24) CHM 1112	Lab
4022	Swarna Mohan Th 11:00am - 1:50pm	Seats (Total: 24) CHM 1111	Lab
4023	Swarna Mohan Th 11:00am - 1:50pm	Seats (Total: 24) CHM 1112	Lab
4024	Swarna Mohan Th 11:00am - 1:50pm	Seats (Total: 24) CHM 1128	Lab

4031	Swarna Mohan Th 2:00pm - 4:50pm	Seats (Total: 24) CHM 1110	Lab
4032	Swarna Mohan Th 2:00pm - 4:50pm	Seats (Total: 24) CHM 1111	Lab
4033	Swarna Mohan Th 2:00pm - 4:50pm	Seats (Total: 24) CHM 1112	Lab
4034	Swarna Mohan Th 2:00pm - 4:50pm	Seats (Total: 24) CHM 1128	Lab
4042	Swarna Mohan Th 6:00pm - 8:50pm	Seats (Total: 24) CHM 1111	Lab
4044	Swarna Mohan Th 6:00pm - 8:50pm	Seats (Total: 24) CHM 1128	Lab
SES1	Swarna Mohan Th 6:00pm - 8:50pm *Restricted to students in the SIE Program. Click here for more information.*	Seats (Total: 23) CHM 1110	Lab

BSCI171S **Principles of Molecular & Cellular Biology Laboratory**

Credits: 1 Grading Method: Regular, Pass-Fail

Prerequisite: Must have math eligibility of MATH120 or higher. Corequisite: BSCI170. Recommended: For Science majors.

Basic laboratory principles of biology with special emphasis on cellular and molecular biology.

(Sponsoring Dept.: BSCI). Students must pay a $40.00 laboratory materials fee. Restricted to College Park Scholars - Life Sciences.

1041	Swarna Mohan M 5:00pm - 7:50pm	Seats (Total: 24) CHM 1110	Lab
2032	Swarna Mohan Tu 2:00pm - 4:50pm	Seats (Total: 24) CHM 1111	Lab

BSCI201 **Human Anatomy and Physiology I**

Credits: 4 | Grading Method: Regular, Pass-Fail, Audit | CORE: LL | General Education: DSNL

Prerequisite: BSCI170 and BSCI171; or BSCI105; or students who have taken courses with comparable content may contact the department.

Anatomy and physiology of the skeletal, muscular, neural, endocrine, and sensory systems. Course not acceptable toward major requirements in Biological Sciences, Chemistry or Biochemistry.

(Sponsoring Dept.: BIOL). Students must pay a $40.00 laboratory materials fee.

0101	Justicia Opoku-Edusei, Caitlin Fox MWF 12:00pm - 12:50pm M 5:00pm - 7:50pm	Seats (Total: 24) BRB 1101 BPS 0205	Lab
0103	Caitlin Fox, Justicia Opoku-Edusei MWF 12:00pm - 12:50pm Tu 11:00am - 1:50pm	Seats (Total: 24) BRB 1101 BPS 0205	Lab
0105	Caitlin Fox, Justicia Opoku-Edusei MWF 12:00pm - 12:50pm Tu 2:00pm - 4:50pm	Seats (Total: 24) BRB 1101 BPS 0205	Lab
0106	Caitlin Fox, Justicia Opoku-Edusei MWF 12:00pm - 12:50pm Tu 5:00pm - 7:50pm	Seats (Total: 24) BRB 1101 BPS 0205	Lab
0107	Caitlin Fox, Justicia Opoku-Edusei MWF 12:00pm - 12:50pm W 8:00am - 10:50am	Seats (Total: 24) BRB 1101 BPS 0205	Lab
0108	Justicia Opoku-Edusei, Caitlin Fox MWF 12:00pm - 12:50pm W 2:00pm - 4:50pm	Seats (Total: 24) BRB 1101 BPS 0205	Lab
0109	Caitlin Fox, Justicia Opoku-Edusei MWF 12:00pm - 12:50pm Th 8:00am - 10:50am	Seats (Total: 24) BRB 1101 BPS 0205	Lab
0110	Caitlin Fox, Justicia Opoku-Edusei MWF 12:00pm - 12:50pm Th 11:00am - 1:50pm	Seats (Total: 24) BRB 1101 BPS 0205	Lab

0111	Justicia Opoku-Edusei, Caitlin Fox MWF 12:00pm - 12:50pm M 2:00pm - 4:50pm	Seats (Total: 24) BRB 1101 BPS 0205	 Lab
1101	Sara Lombardi, Caitlin Fox TuTh 12:30pm - 1:45pm M 11:00am - 1:50pm	Seats (Total: 24) ESJ 0202 BPS 0205	 Lab
1103	Sara Lombardi, Caitlin Fox TuTh 12:30pm - 1:45pm M 2:00pm - 4:50pm	Seats (Total: 24) ESJ 0202 BPS 0275	 Lab
1104	Caitlin Fox, Sara Lombardi TuTh 12:30pm - 1:45pm M 5:00pm - 7:50pm	Seats (Total: 24) ESJ 0202 BPS 0275	 Lab
1105	Caitlin Fox, Sara Lombardi TuTh 12:30pm - 1:45pm Tu 8:00am - 10:50am	Seats (Total: 24) ESJ 0202 BPS 0275	 Lab
1106	Caitlin Fox, Sara Lombardi TuTh 12:30pm - 1:45pm Tu 2:00pm - 4:50pm	Seats (Total: 24) ESJ 0202 BPS 0275	 Lab
1107	Caitlin Fox, Sara Lombardi TuTh 12:30pm - 1:45pm Tu 5:00pm - 7:50pm	Seats (Total: 24) ESJ 0202 BPS 0275	 Lab
1108	Caitlin Fox, Sara Lombardi TuTh 12:30pm - 1:45pm W 11:00am - 1:50pm	Seats (Total: 24) ESJ 0202 BPS 0205	 Lab
1109	Caitlin Fox, Sara Lombardi TuTh 12:30pm - 1:45pm W 5:00pm - 7:50pm	Seats (Total: 24) ESJ 0202 BPS 0205	 Lab
1110	Sara Lombardi, Caitlin Fox TuTh 12:30pm - 1:45pm Th 2:00pm - 4:50pm	Seats (Total: 24) ESJ 0202 BPS 0205	 Lab

SES1	Nelson Bennett, Caitlin Fox Tu 6:00pm - 8:50pm Th 6:00pm - 8:50pm	Seats (Total: 24) BPS 1250 BPS 0205	 Lab
	Restricted to students in the SIE Program. Click here for more information.		

BSCI202 **Human Anatomy and Physiology II**

Credits: 4 Grading Method: Regular, Pass-Fail, Audit

Prerequisite: BSCI201; or permission of CMNS-Biology department.

Anatomy and physiology of the cardiovascular, respiratory, immune, digestive, urinary and reproductive systems. Course not acceptable toward major requirements in Biological Sciences, Chemistry or Biochemistry.

(Sponsoring Dept.: BIOL). Students must pay a $40.00 laboratory materials fee.

0101	Caitlin Fox, Tammatha O'Brien TuTh 8:00am - 9:15am M 11:00am - 1:50pm	Seats (Total: 24) ESJ 0224 BPS 0201	 Lab
0102	Caitlin Fox, Tammatha O'Brien TuTh 8:00am - 9:15am Tu 9:30am - 12:20pm	Seats (Total: 24) ESJ 0224 BPS 0201	 Lab
0103	Caitlin Fox, Tammatha O'Brien TuTh 8:00am - 9:15am Tu 3:30pm - 6:20pm	Seats (Total: 24) ESJ 0224 BPS 0201	 Lab
0104	Tammatha O'Brien, Caitlin Fox TuTh 8:00am - 9:15am W 2:00pm - 4:50pm	Seats (Total: 24) ESJ 0224 BPS 0201	 Lab
0105	Tammatha O'Brien, Caitlin Fox TuTh 8:00am - 9:15am W 5:00pm - 7:50pm	Seats (Total: 24) ESJ 0224 BPS 0201	 Lab
0106	Caitlin Fox, Tammatha O'Brien TuTh 8:00am - 9:15am Th 9:30am - 12:20pm	Seats (Total: 24) ESJ 0224 BPS 0201	 Lab

0108	Tammatha O'Brien, Caitlin Fox TuTh 8:00am - 9:15am Th 12:30pm - 3:20pm	Seats (Total: 24) ESJ 0224 BPS 0201	 Lab
1101	Sara Lombardi, Caitlin Fox TuTh 9:30am - 10:45am M 2:00pm - 4:50pm	Seats (Total: 24) BRB 1101 BPS 0201	 Lab
1102	Caitlin Fox, Sara Lombardi TuTh 9:30am - 10:45am M 5:00pm - 7:50pm	Seats (Total: 24) BRB 1101 BPS 0201	 Lab
1103	Caitlin Fox, Sara Lombardi TuTh 9:30am - 10:45am Tu 12:30pm - 3:20pm	Seats (Total: 24) BRB 1101 BPS 0201	 Lab
1104	Caitlin Fox, Sara Lombardi TuTh 9:30am - 10:45am Tu 6:30pm - 9:20pm	Seats (Total: 24) BRB 1101 BPS 0201	 Lab
1105	Sara Lombardi, Caitlin Fox TuTh 9:30am - 10:45am W 8:00am - 10:50am	Seats (Total: 24) BRB 1101 BPS 0201	 Lab
1106	Sara Lombardi, Caitlin Fox TuTh 9:30am - 10:45am W 11:00am - 1:50pm	Seats (Total: 24) BRB 1101 BPS 0201	 Lab
1107	Caitlin Fox, Sara Lombardi TuTh 9:30am - 10:45am Th 12:30pm - 3:20pm	Seats (Total: 24) BRB 1101 BPS 0275	 Lab
1108	Caitlin Fox, Sara Lombardi TuTh 9:30am - 10:45am Th 3:30pm - 6:20pm	Seats (Total: 24) BRB 1101 BPS 0201	 Lab
1109	Sara Lombardi, Caitlin Fox TuTh 9:30am - 10:45am Th 3:30pm - 6:20pm	Seats (Total: 24) BRB 1101 BPS 0275	 Lab

1110	Sara Lombardi, Caitlin Fox TuTh 9:30am - 10:45am Th 6:30pm - 9:20pm	Seats (Total: 24) BRB 1101 BPS 0275	 Lab

BSCI207 **Principles of Biology III - Organismal Biology**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Prerequisite: BSCI160 and BSCI161; or BSCI106. And BSCI170 and BSCI171; or BSCI105. And must have completed or be concurrently enrolled in CHEM131.

The diversity, structure and function of organisms as understood from the perspective of their common physicochemical principles and unique evolutionary histories.

(Sponsoring Dept.: BSCI).

0101	Leo Shapiro MWF 11:00am - 11:50am	Seats (Total: 200) HJP 0226	
0201	Leo Shapiro MWF 2:00pm - 2:50pm	Seats (Total: 100) BPS 1243	

BSCI222 **Principles of Genetics**

Credits: 4 Grading Method: Regular, Pass-Fail, Audit

Prerequisite: CHEM131 and CHEM132; and (BSCI160 and BSCI161; or BSCI106); and (BSCI170 and BSCI171; or BSCI105). Or must have completed BSCI105 or (BSCI170 and BSCI171); and two semesters of chemistry.

Principles and mechanisms of heredity and gene expression. Considers plant, animal, and microbial organisms.

(Sponsoring Dept.: BSCI).

7106	David Straney MWF 1:00pm - 1:50pm M 4:00pm - 5:50pm	Seats (Total: 23) BRB 1101 PLS 1121	 Discussion
7108	David Straney MWF 1:00pm - 1:50pm W 4:00pm - 5:50pm	Seats (Total: 23) BRB 1101 HJP 3233	 Discussion

7110	David Straney MWF 1:00pm - 1:50pm Th 10:00am - 11:50am	Seats (Total: 23) BRB 1101 HJP 3233	 Discussion
7112	David Straney MWF 1:00pm - 1:50pm Tu 6:00pm - 7:50pm	Seats (Total: 23) BRB 1101 HJP 3233	 Discussion
7114	David Straney MWF 1:00pm - 1:50pm Tu 8:00am - 9:50am	Seats (Total: 23) BRB 1101 HJP 3233	 Discussion
7116	David Straney MWF 1:00pm - 1:50pm Tu 10:00am - 11:50am	Seats (Total: 23) BRB 1101 HJP 3233	 Discussion
7118	David Straney MWF 1:00pm - 1:50pm Th 12:00pm - 1:50pm	Seats (Total: 23) BRB 1101 HJP 3233	 Discussion
7120	David Straney MWF 1:00pm - 1:50pm Th 8:00am - 9:50am	Seats (Total: 23) BRB 1101 PLS 1121	 Discussion
7130	David Straney MWF 1:00pm - 1:50pm Th 2:00pm - 3:50pm	Seats (Total: 23) BRB 1101 PLS 1121	 Discussion
7133	David Straney MWF 1:00pm - 1:50pm Tu 6:00pm - 7:50pm	Seats (Total: 23) BRB 1101 PLS 1121	 Discussion
7214	Kimberly Paczolt TuTh 12:30pm - 1:45pm W 12:00pm - 1:50pm	Seats (Total: 23) BRB 1101 HJP 3233	 Discussion
7216	Kimberly Paczolt TuTh 12:30pm - 1:45pm W 2:00pm - 3:50pm	Seats (Total: 23) BRB 1101 PLS 1121	 Discussion

7218	Kimberly Paczolt TuTh 12:30pm - 1:45pm W 4:00pm - 5:50pm	Seats (Total: 23) BRB 1101 PLS 1121	 Discussion
7220	Kimberly Paczolt TuTh 12:30pm - 1:45pm Tu 8:00am - 9:50am	Seats (Total: 23) BRB 1101 PLS 1121	 Discussion
7221	Kimberly Paczolt TuTh 12:30pm - 1:45pm M 12:00pm - 1:50pm	Seats (Total: 23) BRB 1101 PLS 1121	 Discussion
7222	Kimberly Paczolt TuTh 12:30pm - 1:45pm M 2:00pm - 3:50pm	Seats (Total: 23) BRB 1101 HJP 3233	 Discussion
7224	Kimberly Paczolt TuTh 12:30pm - 1:45pm Tu 2:00pm - 3:50pm	Seats (Total: 23) BRB 1101 HJP 3233	 Discussion
7232	Kimberly Paczolt TuTh 12:30pm - 1:45pm M 6:00pm - 7:50pm	Seats (Total: 23) BRB 1101 HJP 3233	 Discussion
7236	Kimberly Paczolt TuTh 12:30pm - 1:45pm Tu 10:00am - 11:50am	Seats (Total: 23) BRB 1101 PLS 1121	 Discussion
7310	Raymond StLeger TuTh 9:30am - 10:45am Tu 4:00pm - 5:50pm	Seats (Total: 23) HJP 0226 HJP 3233	 Discussion
7311	Raymond StLeger TuTh 9:30am - 10:45am W 8:00am - 9:50am	Seats (Total: 23) HJP 0226 PLS 1121	 Discussion
7312	Raymond StLeger TuTh 9:30am - 10:45am M 10:00am - 11:50am	Seats (Total: 23) HJP 0226 HJP 3233	 Discussion

7313	Raymond StLeger TuTh 9:30am - 10:45am M 2:00pm - 3:50pm	Seats (Total: 23) HJP 0226 PLS 1121	Discussion
7315	Raymond StLeger TuTh 9:30am - 10:45am W 2:00pm - 3:50pm	Seats (Total: 23) HJP 0226 HJP 3233	Discussion
7320	Raymond StLeger TuTh 9:30am - 10:45am M 4:00pm - 5:50pm	Seats (Total: 23) HJP 0226 HJP 3233	Discussion
7325	Raymond StLeger TuTh 9:30am - 10:45am W 6:00pm - 7:50pm	Seats (Total: 23) HJP 0226 HJP 3233	Discussion
7330	Raymond StLeger TuTh 9:30am - 10:45am W 12:00pm - 1:50pm	Seats (Total: 23) HJP 0226 PLS 1121	Discussion
7332	Raymond StLeger TuTh 9:30am - 10:45am Tu 2:00pm - 3:50pm	Seats (Total: 23) HJP 0226 PLS 1121	Discussion
7335	Raymond StLeger TuTh 9:30am - 10:45am W 10:00am - 11:50am	Seats (Total: 23) HJP 0226 HJP 3233	Discussion
SES1	Keith Lampel Tu 6:00pm - 8:50pm Th 6:00pm - 7:50pm	Seats (Total: 23) PLS 1162 HJP 3233	Discussion
	Restricted to students in the SIE Program. Click here for more information.		

BSCI223 **General Microbiology**

Credits: 4 | Grading Method: Regular, Pass-Fail, Audit | CORE: LL | General Education: DSNL, SCIS

Prerequisite: BSCI170 and BSCI171; or BSCI105.

Fundamental concepts in morphology, physiology, genetics, immunology, ecology, and pathogenic microbiology. Applications of microbiology to medicine, the food industry and biotechnology.

(Sponsoring Dept.: CBMG) Students must pay a $40.00 laboratory materials fee.

1021	Erin Tran TuTh 11:00am - 11:50am TuTh 9:00am - 10:50am	Seats (Total: 20) BRB 1101 MCB 1201	 Lab
1025	Erin Tran TuTh 11:00am - 11:50am TuTh 9:00am - 10:50am	Seats (Total: 20) BRB 1101 MCB 1205	 Lab
1026	Erin Tran TuTh 11:00am - 11:50am TuTh 9:00am - 10:50am	Seats (Total: 20) BRB 1101 MCB 1206	 Lab
1101	Erin Tran TuTh 11:00am - 11:50am MW 10:00am - 11:50am	Seats (Total: 20) BRB 1101 MCB 1201	 Lab
1105	Erin Tran TuTh 11:00am - 11:50am MW 10:00am - 11:50am	Seats (Total: 20) BRB 1101 MCB 1205	 Lab
1106	Erin Tran TuTh 11:00am - 11:50am MW 10:00am - 11:50am	Seats (Total: 20) BRB 1101 MCB 1206	 Lab
1121	Erin Tran TuTh 11:00am - 11:50am TuTh 12:00pm - 1:50pm	Seats (Total: 20) BRB 1101 MCB 1201	 Lab
1125	Erin Tran TuTh 11:00am - 11:50am TuTh 12:00pm - 1:50pm	Seats (Total: 20) BRB 1101 MCB 1205	 Lab
1126	Erin Tran TuTh 11:00am - 11:50am TuTh 12:00pm - 1:50pm	Seats (Total: 20) BRB 1101 MCB 1206	 Lab
1201	Erin Tran TuTh 11:00am - 11:50am MW 12:00pm - 1:50pm	Seats (Total: 20) BRB 1101 MCB 1201	 Lab

1206	Erin Tran TuTh 11:00am - 11:50am MW 12:00pm - 1:50pm	Seats (Total: 20) BRB 1101 MCB 1206	Lab
1221	Erin Tran TuTh 11:00am - 11:50am TuTh 2:00pm - 3:50pm	Seats (Total: 20) BRB 1101 MCB 1201	Lab
1225	Erin Tran TuTh 11:00am - 11:50am TuTh 2:00pm - 3:50pm	Seats (Total: 20) BRB 1101 MCB 1205	Lab
1226	Erin Tran TuTh 11:00am - 11:50am TuTh 2:00pm - 3:50pm	Seats (Total: 20) BRB 1101 MCB 1206	Lab
1301	Erin Tran TuTh 11:00am - 11:50am MW 2:00pm - 3:50pm	Seats (Total: 20) BRB 1101 MCB 1201	Lab
1306	Erin Tran TuTh 11:00am - 11:50am MW 2:00pm - 3:50pm	Seats (Total: 20) BRB 1101 MCB 1206	Lab
2401	Erin Tran TuTh 11:00am - 11:50am MW 4:00pm - 5:50pm	Seats (Total: 20) BRB 1101 MCB 1201	Lab
2406	Erin Tran TuTh 11:00am - 11:50am MW 4:00pm - 5:50pm	Seats (Total: 20) BRB 1101 MCB 1206	Lab

BSCI238B **Special Topics in Biology Student Initiated Courses; Astrobiology: Abiogenesis (The Origin of Life) and Early Life**

Credits: 1 Grading Method: Regular, Pass-Fail

Student Initiated Course (STIC) in Biology. Course will be student initiated and taught under close supervision of faculty mentor. Student instructor and faculty mentor must generate proposal and have approval of the Biological Sciences Program to offer a BSCI238 STIC. BSCI238 cannot be applied to the degree requirements of any biological sciences major.

(Sponsoring Dept.: CBMG) Prerequisites: One of the following: BSCI103, BSCI170 (or BSCI105), ASTR230, ASTR380 or BIOE120; or permission of instructor. Students are provided with an immersive and wide spanning introduction to the topic of abiogenesis (the origin of life) and the background necessary to understand how it could have happened. It is intended to be taken by students with a strong background in the natural sciences.

0101	Charles Delwiche	Seats (Total: 30)
	W 3:00pm - 3:50pm	PLS 1113

BSCI258 **College Park Scholars Internship**

Credits: 2 Grading Method: Regular, Pass-Fail, Audit

Credit to be determined by CPS Director. Must be completed by end of sophomore year.

(Sponsoring Dept.: BSCI).

8005	Jimmy McClellan, Beth Parent	Seats (Total: 90)
	Contact instructor or department for details.	

BSCI279 **Supplemental Study; Supplemental Study in Biology**

(Perm req)

Credits: 1-3 Grading Method: Regular, Pass-Fail, Audit

Research or special study to complement a course taken previously which is not fully equivalent to current departmental requirements. Credit according to work done.

(Sponsoring Dept.: BIOL).

Contact department for information to register for this course.

BSCI279B **Supplemental Study; BioFIRE Spring Colloquium**

Credits: 1 Grading Method: Regular, Pass-Fail, Audit

Research or special study to complement a course taken previously which is not fully equivalent to current departmental requirements. Credit according to work done.

Restricted to BioFire students.

0101	Katerina Thompson, Jennifer Carrion	Seats (Total: 60)
	Tu 3:30pm - 4:45pm	ESJ 1215

BSCI279C **Supplemental Study; Catalyst Program Seminar**

(Perm req)

Credits: 1

Grading Method: Regular, Pass-Fail

Research or special study to complement a course taken previously which is not fully equivalent to current departmental requirements. Credit according to work done.

(Sponsoring Dept: BIOL).

0101	Katerina Thompson M 3:30pm - 5:00pm	Seats (Total: 47) BPS 1243

BSCI279H **Supplemental Study; Catalyst Program Seminar**

(Perm req)

Credits: 1

Grading Method: Regular, Pass-Fail

Research or special study to complement a course taken previously which is not fully equivalent to current departmental requirements. Credit according to work done.

(Sponsoring Dept: BIOL).

0101	Katerina Thompson M 3:30pm - 5:00pm	Seats (Total: 70) BPS 1243

BSCI279P **Supplemental Study; Undergraduate Teaching Fellows Professional Development Seminar**

(Perm req)

Credits: 1

Grading Method: Regular, Pass-Fail, Audit

Research or special study to complement a course taken previously which is not fully equivalent to current departmental requirements. Credit according to work done.

Prerequisite: permission of department.

Contact department for information to register for this course.

BSCI279Q **Supplemental Study; Readings in Neurophysiology**

(Perm req)

Credits: 1

Grading Method: Regular, Pass-Fail, Audit

Research or special study to complement a course taken previously which is not fully equivalent to current departmental requirements. Credit according to work done.

(Sponsoring Dept.: BIOL).

0101	Daniel Butts, Elizabeth Quinlan, Ricardo Araneda, Patrick Kanold Contact instructor or department for details.	Seats (Total: 10)

BSCI279R **Supplemental Study; Undergraduate Research Rotation**

(Perm req)

Credits: 1-3 Grading Method: Regular, Pass-Fail, Audit

Research or special study to complement a course taken previously which is not fully equivalent to current departmental requirements. Credit according to work done.

(Sponsoring Dept.: CBMG).

Contact department for information to register for this course.

BSCI279T **Supplemental Study; BSCI Learning Assistants**

(Perm req)

Credits: 1-3 Grading Method: Regular, Pass-Fail, Audit

Research or special study to complement a course taken previously which is not fully equivalent to current departmental requirements. Credit according to work done.

Contact department for information to register for this course.

BSCI283 **Principles of Microbiology**

Credits: 4 Grading Method: Regular, Pass-Fail, Audit General Education: DSNL, SCIS

Prerequisite: BSCI207 and BSCI222. Credit only granted for: BSCI223 or BSCI283. Additional information: Priority given to BSCI, BCHM and CHEM majors.

Introduction to microorganisms designed for science majors. Genetic principles underlying microbial abilities; microbial structure-function relationships; metabolism, physiology, and ecology of microorganisms; interactions between microorganisms (including pathogens) and their hosts.

(Sponsoring Dept.: CBMG). Students must pay a $40.00 laboratory materials fee.

1205	Daniel Dwyer MW 10:00am - 10:50am MW 12:00pm - 1:50pm	Seats (Total: 20) ESJ 1309 MCB 1205	 Lab
1305	Daniel Dwyer MW 10:00am - 10:50am MW 2:00pm - 3:50pm	Seats (Total: 20) ESJ 1309 MCB 1205	 Lab

BSCI288 **Internship; Field Experience**

(Perm req)

Credits: 1-6 Grading Method: Regular, Pass-Fail, Audit

An individual experience arranged by the student with the instructor.

(Sponsoring Dept.: BSCI).

Contact department for information to register for this course.

BSCI288H **Internship**

(Perm req)

Credits: 1-6 Grading Method: Regular, Pass-Fail, Audit

An individual experience arranged by the student with the instructor.

Contact department for information to register for this course.

BSCI289 **Off-Campus Internship**

(Perm req)

Credits: 1-3 Grading Method: Sat-Fail

Elective credit for formally established off-campus research internship. Permission of Director of Outreach required.

(Sponsoring Dept.: BSCI). Provides credit for off-campus research internships. This credit counts as elective toward graduation, but does not satisfy any Biological Sciences degree requirements (For information about research credit that does count toward Biological Sciences contact the Biological Sciences Program, room 1322 Symons Hall). This requires that a contract form be filed with the Director of Undergraduate Research and Internship Programs, Room 1313 Symons Hall, prior to the internship. The contract must be finalized and signed by the research supervisor at the end of the semester before credit will be awarded.

1110	Katerina Thompson Contact instructor or department for details.	Seats (Total: 15)
1111	Katerina Thompson Contact instructor or department for details.	Seats (Total: 40)

BSCI329 **Instructional Assistance Practicum**

(Perm req)

Credits: 1-3 Grading Method: Regular, Pass-Fail, Audit

Students serve as instructional assistants in selected undergraduate biology courses. Roles and responsibilities are determined on a course- specific basis and approved by the College Undergraduate Program Committee.

(Sponsoring Dept.: BIOL). Credit cannot be applied to the requirements of any Biological Sciences Major. Prerequiste: permission of department.

1016	Hilary Bierman Contact instructor or department for details.	Seats (Total: 5)
1020	Gerald Borgia Contact instructor or department for details.	Seats (Total: 5)
1250	Justicia Opoku-Edusei Contact instructor or department for details.	Seats (Total: 20)
SG91	Hadiya Woodham Contact instructor or department for details.	Seats (Total: 10)

BSCI329H **Instructional Assistance Practicum; Honors Instructional Assistance Practicum**

(Perm req)

Credits: 1-2 Grading Method: Regular, Pass-Fail, Audit

Students serve as instructional assistants in selected undergraduate biology courses. Roles and responsibilities are determined on a course- specific basis and approved by the College Undergraduate Program Committee.

(Sponsoring Dept.: BIOL). Credit cannot be applied to the requirements of any Biological Sciences Major. Prerequiste: permission of department.

2080	Sabrina Kramer, Todd Cooke Contact instructor or department for details.	Seats (Total: 20)

BSCI330 **Cell Biology and Physiology**

Credits: 4 Grading Method: Regular, Pass-Fail, Audit

Prerequisite: Minimum grade of C- in CHEM131 and CHEM132. And minimum grade of C- in BSCI170 and BSCI171; or minimum grade of C- in BSCI105. Restriction: Must not have completed BSCI230. Credit only granted for: BSCI230 or BSCI330. Formerly: BSCI230.

Biochemical and physiological mechanisms underlying cellular function. Properties of cells which make life possible and mechanisms by which cells provide energy, reproduce, and regulate and integrate with each other and their environment.

(Sponsoring Dept: BIOL). Specialization Areas: PHNB, CEBG, MICB, ECEV, and GENB. Students must pay a $40.00 laboratory materials fee.

0101	Beth Parent MWF 10:00am - 10:50am M 11:00am - 1:50pm	Seats (Total: 24) BRB 1101 BPS 0207	 Lab

0102	Beth Parent MWF 10:00am - 10:50am M 2:00pm - 4:50pm	Seats (Total: 24) BRB 1101 BPS 0207	 Lab
0104	Beth Parent MWF 10:00am - 10:50am Tu 9:30am - 12:20pm	Seats (Total: 24) BRB 1101 BPS 0207	 Lab
0106	Beth Parent MWF 10:00am - 10:50am Tu 2:00pm - 4:50pm	Seats (Total: 24) BRB 1101 BPS 0207	 Lab
0107	Beth Parent MWF 10:00am - 10:50am W 11:00am - 1:50pm	Seats (Total: 24) BRB 1101 BPS 0207	 Lab
0108	Beth Parent MWF 10:00am - 10:50am W 2:00pm - 4:50pm	Seats (Total: 24) BRB 1101 BPS 0207	 Lab
0110	Beth Parent MWF 10:00am - 10:50am Th 11:00am - 1:50pm	Seats (Total: 24) BRB 1101 BPS 0213	 Lab
0111	Beth Parent MWF 10:00am - 10:50am Th 2:00pm - 4:50pm	Seats (Total: 24) BRB 1101 BPS 0207	 Lab
1101	Kenneth Frauwirth TuTh 11:00am - 12:15pm M 9:00am - 11:50am	Seats (Total: 24) ESJ 0224 BPS 0213	 Lab
1102	Kenneth Frauwirth TuTh 11:00am - 12:15pm M 2:00pm - 4:50pm	Seats (Total: 24) ESJ 0224 BPS 0213	 Lab
1103	Kenneth Frauwirth TuTh 11:00am - 12:15pm M 6:00pm - 8:50pm	Seats (Total: 24) ESJ 0224 BPS 0213	 Lab

1104	Kenneth Frauwirth TuTh 11:00am - 12:15pm Tu 2:30pm - 5:20pm	Seats (Total: 24) ESJ 0224 BPS 0213	 Lab
1105	Kenneth Frauwirth TuTh 11:00am - 12:15pm Tu 6:00pm - 8:50pm	Seats (Total: 24) ESJ 0224 BPS 0213	 Lab
1106	Kenneth Frauwirth TuTh 11:00am - 12:15pm W 9:00am - 11:50am	Seats (Total: 24) ESJ 0224 BPS 0213	 Lab
1107	Kenneth Frauwirth TuTh 11:00am - 12:15pm W 2:00pm - 4:50pm	Seats (Total: 24) ESJ 0224 BPS 0213	 Lab
1108	Kenneth Frauwirth TuTh 11:00am - 12:15pm W 6:00pm - 8:50pm	Seats (Total: 24) ESJ 0224 BPS 0213	 Lab
SES1	Elizabeth Read-Connole Tu 6:30pm - 9:30pm Th 6:30pm - 9:30pm *Restricted to students in the SIE Program. Click here for more information.*	Seats (Total: 24) BPS 1238 BPS 0213	 Lab

BSCI334 **Mammalogy**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Prerequisite: Minimum grade of C- in BSCI207. And minimum grade of C- in BSCI160 and BSCI161; or minimum grade of C- in BSCI106.

Introduction to the biology of mammals, including evolution, physiological, and behavioral specializations.

(Sponsoring Dept.: BIOL). Acceptable toward Biological Sciences Specialization Areas: GENB and ECEV.

0101	Katerina Thompson TuTh 12:30pm - 1:45pm	Seats (Total: 75) ESJ 0215

BSCI335 **Mammalogy Laboratory**

Credits: 1

Grading Method: Regular, Pass-Fail, Audit

Prerequisite: Minimum grade of C- in BSCI160 and BSCI161; or minimum grade of C- in BSCI106. And minimum grade of C- in BSCI207; and must have completed or be concurrently enrolled in BSCI334.

Lab and field techniques for the study of mammals, focusing on their identification, anatomy, histology, spatial distribution, ecology, and behavior.

(Sponsoring Dept.: BIOL). Acceptable toward Biological Sciences specialization areas: ECEV and GENB. Students must pay a $40.00 laboratory materials fee.

0101	Katerina Thompson Tu 2:00pm - 4:50pm	Seats (Total: 20) HJP 2230	Lab
0102	Katerina Thompson W 2:00pm - 4:50pm	Seats (Total: 20) HJP 2230	Lab

BSCI337 Biology of Insects

Credits: 4

Grading Method: Regular, Pass-Fail, Audit

Prerequisite: BSCI160 and BSCI161; or BSCI106; or permission of CMNS-Entomology department.

An overview of the biology, evolution and diversity of insects and their relatives. Insect morphology, physiology, behavior and ecology; the impact of insects on humanity and the management of pest insect populations; assembly of an insect collection is required.

(Sponsoring Dept.: ENTM). Specialization Areas: GENB and ECEV. Students must pay a $40.00 laboratory materials fee.

0101	Leslie Pick, Jian Wang TuTh 9:30am - 10:45am Th 2:00pm - 4:50pm	Seats (Total: 18) PLS 1113 PLS 1161	Lab
0102	Jian Wang, Leslie Pick TuTh 9:30am - 10:45am Tu 2:00pm - 4:50pm	Seats (Total: 18) PLS 1113 PLS 1161	Lab

BSCI338C Special Topics in Biology; Pathophysiology of Cardiac Disorders

Credits: 3

Grading Method: Regular, Pass-Fail, Audit

Lectures, seminars, mini-courses and other special instruction in various biological subjects.

Credit cannot be applied to the requirements of any Biological Sciences Major. Prerequisite: BSCI330 This course encompasses active-learning-based lectures and student presentations focused on pathological conditions associated with the cardiovascular system. Knowledge in the basic sciences will be applied to real clinical cases in each class.

SES1	Marie Bergmeyer	Seats (Total: 20)
	F 6:00pm - 8:50pm	ESJ B0322
	Restricted to students in the SIE Program. Click here for more information.	

BSCI338D **Special Topics in Biology; Complexity of Cancer**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Lectures, seminars, mini-courses and other special instruction in various biological subjects.

(Sponsoring Dept.: BIOL).

Contact department for information to register for this course.

BSCI338F **Special Topics in Biology; iGEM Research Seminar**

(Perm req)

Credits: 2 Grading Method: Regular, Pass-Fail, Audit

Lectures, seminars, mini-courses and other special instruction in various biological subjects.

(Sponsoring Dept.: BIOL). Restriction: Permission of instructor. Also offered as BIOE389F. Credit grandted for BSCI338F or BIOE389F. This course is open to iGEM team members to develop a synthetic biology research project for the internatial Genetically Engineered Machines competition.

0101	Edward Eisenstein, Jason Kahn	Seats (Total: 30)
	Th 3:00pm - 4:50pm	ATL 1114

BSCI338I **Special Topics in Biology; Medical Biotechnology & Drug Development**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Lectures, seminars, mini-courses and other special instruction in various biological subjects.

(Sponsoring Dept.: BIOL).

Contact department for information to register for this course.

BSCI338J **Special Topics in Biology; Medical Exploration of HIV/AIDS**

Credits: 3

Grading Method: Regular, Pass-Fail, Audit

Lectures, seminars, mini-courses and other special instruction in various biological subjects.

(Sponsoring Dept.: BIOL).

Contact department for information to register for this course.

BSCI338M **Special Topics in Biology; Human Health and Disease: A Clinical Approach**

Credits: 3

Grading Method: Regular, Pass-Fail, Audit

Lectures, seminars, mini-courses and other special instruction in various biological subjects.

(Sponsoring Dept.: BIOL).

Contact department for information to register for this course.

BSCI338R **Special Topics in Biology; Darwinian Medicine**

Credits: 3

Grading Method: Regular, Pass-Fail, Audit

Lectures, seminars, mini-courses and other special instruction in various biological subjects.

(Sponsoring Dept: BIOL). Acceptable toward Biological Sciences specialization areas: ECEV, GENB, and PHNB. Prerequisite: BSCI160 and BSCI161; or BSCI106. And BSCI222. Physicians and biologists have come to realize that evolutionary theory can contribute greatly to our understanding of disease processes and how we treat maladies. In this course, we will explore the integration of evolutionary biology and medical practice.This course involves lectures and readings, and students are expected to participate actively in discussions.

0101	Gerald Borgia	Seats (Total: 25)
	F 2:00pm - 5:00pm	PLS 1117

BSCI338Z **Special Topics in Biology; Field Research**

(Perm req)

Credits: 1-3

Grading Method: Regular, Pass-Fail, Audit

Lectures, seminars, mini-courses and other special instruction in various biological subjects.

(Sponsoring Dept: BIOL). Cannot be used as credit toward the major requirements for any Biological Sciences major. Contact the Biology Department Undergraduate Office for course information.

Contact department for information to register for this course.

BSCI339C **Selected Topics in Biology; Cell Biology Lab**

(Perm req)

Credits: 1

Grading Method: Regular, Pass-Fail, Audit

Lectures, seminars, and other selected instruction courses in various biological subject matter.

(Sponsoring Dept.: BIOL). Credit will be granted for BSCI330 or BSCI339C. Students must pay the $40.00 laboratory materials fee.

Contact department for information to register for this course.

BSCI339E **Selected Topics in Biology; Developmental Genetics**

(Perm req)

Credits: 3

Grading Method: Regular, Pass-Fail, Audit

Lectures, seminars, and other selected instruction courses in various biological subject matter.

(Sponsoring Dept.): BIOL. Applicable towards Biological Sciences Specialization Areas: GENB and CEBG. Prerequisites: BSCI222 and BSCI430. Focus is placed on the structure, expression, and regulation of genes controlling plant and animal development.

0101	Eric Haag	Seats (Total: 15)
	TuTh 9:30am - 10:45am	BPS 2249

BSCI339G **Selected Topics in Biology; Advanced Physiology**

(Perm req)

Credits: 2

Grading Method: Regular, Pass-Fail, Audit

Lectures, seminars, and other selected instruction courses in various biological subject matter.

(Sponsoring Dept: BIOL). Applicable towards Biological Sciences Specialization Area: GENB and PHNB. Prerequisite: Permission of the department. For students who have completed BSCI440 Mammalian Physiology and want to explore how organ systems are designed to solve fundamental physiological problems. Diverse examples, from comparative physiology to clinical cases, will be considered to illustrate basic principles of systems physiology.

0101	Joshua Singer	Seats (Total: 16)
	W 2:00pm - 3:50pm	BPS 2249

BSCI339I **Selected Topics in Biology; Cellular Mechanisms of Aging and Disease**

Credits: 3

Grading Method: Regular, Pass-Fail, Audit

Lectures, seminars, and other selected instruction courses in various biological subject matter.

This course will explore the cellular mechanisms underlying aging and a variety of noninfectious diseases and disorders ranging from diabetes and obesity to Alzheimer's and various cancers. In addition to lectures, students will read and discuss relevant primary and secondary literature. Assessments will include student-led discussion of primary literature and group presentations of disease topics.

SG91	Hadiya Woodham	Seats (Total: 40)
	TuTh 2:00pm - 3:15pm	BLD4 4321
	Registration is restricted to Biological Sciences- Shady Grove majors. Permission is required for all other students to enroll in courses at Shady Grove. Please email usgbiosci@umd.edu for permission.	

BSCI339Q **Selected Topics in Biology; Diseases Due to Dysfunctional Cell Organelles**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Lectures, seminars, and other selected instruction courses in various biological subject matter.

(Sponsoring Dept: BIOL). Acceptable towards Biological SciencesSpecialization Areas: CEBG (Cell Biology category), GENB (Cell BiologyPhysiology category), and PHNB. Prerequisites: BSCI330 or BCHM461 or BCHM463. A seminar-style course aimed at giving students opportunities to research, prepare, and present advanced-level lectures on genetically linked disorders of cell organelles.

0101	Albert Ades	Seats (Total: 20)
	TuTh 12:30pm - 1:45pm	PLS 1172

BSCI339V **Selected Topics in Biology; Readings in Genetics**

(Perm req)

Credits: 2 Grading Method: Regular, Pass-Fail, Audit

Lectures, seminars, and other selected instruction courses in various biological subject matter.

(Sponsoring Dept: BIOL). Acceptable toward Biological Sciences specialization areas: CEBG (Additional Courses), ECEV, and GENB (Genetics & Evolution). Prerequisite: BSCI222. Seminar discussing current papers in genetics and evolution. Specific topics will be selected based on student interests, across the disciplines of evolutionary genetics, genomics, and molecular biology.

0101	Thomas Kocher	Seats (Total: 14)
	Th 3:00pm - 5:00pm	BPS 1230

BSCI339X **Selected Topics in Biology; Advanced Cellular Neuroscience**

(Perm req)

Credits: 3

Grading Method: Regular, Pass-Fail, Audit

Lectures, seminars, and other selected instruction courses in various biological subject matter.

Prerequisite: required, C- or better in BSCI353; recommended, C- or bett er in BSCI440 or another upper-level neuroscience course. (Sponsoring Dept: BIOL). Applicable to Biological Sciences specialization areas: GENB and PHNB. Readings and discussion in cellular and molecular mechanisms underlying neural circuit development and function.

0101	Colenso Speer	Seats (Total: 5)
	TuTh 3:30pm - 5:30pm	BPS 2249

BSCI348 **Special Topics in Cell Biology and Molecular Genetics**

(Perm req)

Credits: 1-4

Grading Method: Regular, Pass-Fail, Audit

Presentation and discussion of special subjects in the field of cell biology and molecular genetics. A maximum of three credit hours of BSCI 348 may be applied to major.

(Sponsoring Dept.: CBMG). May be repeated, but only 3 credits may be applied to major requirements.

Contact department for information to register for this course.

BSCI348A **Special Topics in Cell Biology and Molecular Genetics; Scientific Teaching Internship**

(Perm req)

Credits: 3

Grading Method: Regular, Pass-Fail, Audit

Presentation and discussion of special subjects in the field of cell biology and molecular genetics. A maximum of three credit hours of BSCI 348 may be applied to major.

(Sponsoring Dept.: CBMG). Students will act as Undergraduate Teaching Assistants for BSCI223. Prerequisite: A or B in BSCI223 and permission of instructor. Student must be available for one of the BSCI223 lab periods. Students interested in this teaching/leadership opportunity should contact Dr. John Buchner for application information: JBuchner@umd.edu. This course is applicable for the Enrichment credits required of all Biological Sciences students in majors with 0404 codes. For others this is elective credit.

0101	John Buchner	Seats (Total: 22)
	Th 5:00pm - 5:50pm	MCB 1123
	Contact instructor or department for details.	

BSCI348Q **Special Topics in Cell Biology and Molecular Genetics; Special Topics in Cell Biology and Molecular Genetics: Introductory Biology Learning Assistantship**

(Perm req)

Credits: 1-3

Grading Method: Regular, Pass-Fail, Audit

Presentation and discussion of special subjects in the field of cell biology and molecular genetics. A maximum of three credit hours of BSCI 348 may be applied to major.

(Sponsoring Dept.: CBMG). Students apply methodologies learned in BSCI348P by serving as an undergraduate learning assistant (ULA) in conjunction with BSCI170 (formerly BSCI105). Prerequisite: A or B in BSCI348P and permission of instructor. Student must be available for one of the BSCI170 lecture periods (MWF 11-11:50 or 2:00-2:50). Students interested in this teaching/leadership opportunity should contact Dr. Patricia Shields (pshields@umd.edu) for further information.

0101	Patricia Shields	Seats (Total: 40)
	M 6:00pm - 6:50pm	BPS 0283

BSCI348R **Special Topics in Cell Biology and Molecular Genetics; Microbiology Internship**

(Perm req)

Credits: 1-4 Grading Method: Regular, Pass-Fail, Audit

Presentation and discussion of special subjects in the field of cell biology and molecular genetics. A maximum of three credit hours of BSCI 348 may be applied to major.

(Sponsoring Dept.: CBMG). This course is an opportunity for students interested in microbiology to pursue a research project in an off-campus lab. The student must see the instructor and complete an information sheet found on the web site, prior to enrolling in the course.

0101	Najib El-Sayed	Seats (Total: 10)
	Contact instructor or department for details.	

BSCI353 **Principles of Neuroscience**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Prerequisite: 1 course with a minimum grade of C- from (BSCI207, BSCI330). Corequisite: PHYS122, PHYS142, or PHYS132.

Principles of nervous system function, ranging from molecular and cellular basis of neuron function through nervous system integration.

(Sponsoring Dept: BIOL). Acceptable toward Biological Sciences specialization areas: CEBG, GENB, and PHNB.

0101	Catherine Carr	Seats (Total: 150)
	TuTh 12:30pm - 1:45pm	ESJ 2208

SG91	David Sandstrom MW 12:00pm - 1:15pm	Seats (Total: 40) BLD4 5321	
	Registration is restricted to Biological Sciences-Shady Grove majors. Permission is required for all other students to enroll in courses at Shady Grove. Please email usgbiosci@umd.edu for permission.		

BSCI360 **Principles of Animal Behavior**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Prerequisite: BSCI160 and BSCI161; or BSCI106. And BSCI170 and BSCI171; or BSCI105. And BSCI222.

Study of animal behavior with emphasis on its evolution and function. Topics include genetic basis of behavior, communication, aggression, foraging, cooperation, mate selection, and relevance for conservation.

(Sponsoring Dept: BIOL). Acceptable toward Biological Sciences specialization areas: ECEV, GENB, and PHNB.

0101	Gerald Borgia MW 1:00pm - 1:50pm F 12:00pm - 12:50pm	Seats (Total: 20) BPS 0283 PLS 1119	 Discussion
0102	Gerald Borgia MW 1:00pm - 1:50pm F 1:00pm - 1:50pm	Seats (Total: 20) BPS 0283 PLS 1119	 Discussion

BSCI361 **Principles of Ecology**

Credits: 4 Grading Method: Regular, Pass-Fail

Prerequisite: BSCI160 and BSCI161; or BSCI106. And (MATH130, MATH136, or MATH140).

Basic principles of population, community, and ecosystem ecology. Use of these principles to predict possible consequences of human-caused changes in the environment and to understand the level of uncertainty of those predictions.

(Sponsoring Dep.: ENTM). Acceptable toward Biological Sciences Specialization Areas: ECEV and GENB.

0101	Tammatha O'Brien TuTh 9:30am - 10:45am W 1:00pm - 1:50pm	Seats (Total: 25) PLS 1130 JUL 1105	 Discussion
0102	Tammatha O'Brien TuTh 9:30am - 10:45am W 2:00pm - 2:50pm	Seats (Total: 25) PLS 1130 JUL 1105	 Discussion
0103	Tammatha O'Brien TuTh 9:30am - 10:45am W 3:00pm - 3:50pm	Seats (Total: 25) PLS 1130 JUL 1105	 Discussion

BSCI370 **Principles of Evolution**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Prerequisite: BSCI160 and BSCI161; or BSCI106.

Understanding evolutionary processes in a natural and human environment, including adaptation; DNA sequence, protein, and genome evolution; evolution of developmental mechanisms; mechanisms of evolutionary change (mutation, natural selection, drift); epidemiology; coevolution and biological control; speciation; comparative methods; extinction and conservation; human evolution.

(Sponsoring Dept.: BIOL). Acceptable toward Biological Sciences Specialization Areas: PHNB, GENB, and ECEV.

0101	Danielle Adams TuTh 9:30am - 10:45am	Seats (Total: 100) PLS 1140

BSCI378H **Cell Biology and Molecular Genetics Department Honors Seminar**

Credits: 1 Grading Method: Regular, Pass-Fail

Required seminar for all students participating in departmental honors research program.

(Sponsoring Dept.: CBMG). Corequisite: BSCI379H. Restricted to students participating in the CBMG Departmental Honors Program.

Click here for more course information.

0101	Zhongchi Liu F 2:00pm - 2:50pm	Seats (Total: 23) BRB 3101

BSCI379G **Cell Biology and Molecular Genetics Department Research; Research in Cell Biology and Molecular Genetics**

(Perm req)

Credits: 1-3

Grading Method: Regular, Pass-Fail, Audit

This course is arranged to provide qualified majors an opportunity to pursue research problems under the supervision of a member of the department.

Prequisite: permission of department. See CBMG department Undergraduate office. (Sponsoring Dept: CBMG).

Contact department for information to register for this course.

BSCI379H **Cell Biology and Molecular Genetics Department Honors Research**

(Perm req)

Credits: 1-3

Grading Method: Regular, Pass-Fail

Student should consult program guidelines. Research project carried out under guidance of faculty advisor.

Corequisite: BSCI378H. Restricted to students participating in the CBMG Departmental Honors Program. (Sponsoring Dept.: CBMG).

Click here for more course information.

Contact department for information to register for this course.

BSCI379L **Cell Biology and Molecular Genetics Department Research; Lab Research**

(Perm req)

Credits: 1-3

Grading Method: Regular, Pass-Fail, Audit

This course is arranged to provide qualified majors an opportunity to pursue research problems under the supervision of a member of the department.

Any combination of 3 credits of BSCI 379G, BSCI 379L, and BSCI 379H can be used to satisfy the enrichment requirement in CEBG, ECEV, MICB, or PHNB or an upper-level elective in GENB. Students must have successfully completed at least one semester in a Cell Biology & Molecular Genetics department research lab before getting permission to take BSCI 379L in the same lab. Students completing at least 4 credits of laboratory research including at east one semester taking BSCI 379L may substitute this experience for one of the two upper-level laboratory courses required to complete any BSCI major.

Contact department for information to register for this course.

BSCI389 **Entomology Department Research**

(Perm req)

Credits: 1-2

Grading Method: Regular, Pass-Fail, Audit

Credit to be determined by the department. Should be taken during the junior year. Investigations of assigned entomological problems. No more than 4 credit hours of BSCI389 may be applied to the 120 credit hours needed for the Bachelor's degree.

(Sponsoring Dept.: ENTM).

Contact department for information to register for this course.

BSCI389H **Entomology Department Honors Research**

(Perm req)

Credits: 1-2 Grading Method: Regular, Pass-Fail

(Sponsoring Dept.: ENTM).

Contact department for information to register for this course.

BSCI389L **Entomology Department Research; Lab Research**

Credits: 1-2 Grading Method: Regular, Pass-Fail, Audit

Credit to be determined by the department. Should be taken during the junior year. Investigations of assigned entomological problems. No more than 4 credit hours of BSCI389 may be applied to the 120 credit hours needed for the Bachelor's degree.

Contact department for information to register for this course.

BSCI392 **Biology of Extinct Animals**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Prerequisite: BSCI160 and BSCI161; or BSCI106.

A survey of extinct animals that have few, if any, direct living descendants. The principles governing the functional design of animals will be used to infer life styles for extinct, and frequently bizarre, organisms.

(Sponsoring Dept.: ENTM).

0101	Bretton Kent	Seats (Total: 60)
	MWF 10:00am - 10:50am	PLS 1130

BSCI393 **Biology of Extinct Animals Laboratory**

Credits: 1 Grading Method: Regular, Pass-Fail, Audit

Prerequisite: Must have completed or be concurrently enrolled in BSCI392.

An overview of the techniques used in paleobiological reconstructions of extinct animals.

(Sponsoring Dept.: ENTM).

0101	Bretton Kent	Seats (Total: 36)	
	Class time/details on ELMs	ONLINE	Lab
	M 2:00pm - 2:50pm	PLS 1119	Lab

BSCI398H **Biology Department Honors Seminar**

(Perm req)

Credits: 1

Grading Method: Regular, Pass-Fail, Audit

Required seminar for all students participating in departmental honors research program.

(Sponsoring Dept.: BIOL). Prerequisite: permission of department.

0101	Alexandra Bely	Seats (Total: 35)
	M 4:00pm - 4:50pm	BPS 1208

BSCI399 **Biology Department Research; Biology Department Research**

(Perm req)

Credits: 1-3

Grading Method: Regular, Pass-Fail, Audit

Research and/or integrated reading in biology under the direction and close supervision of a member of the faculty.

(Sponsoring Dept: BIOL)

Contact department for information to register for this course.

BSCI399H **Biology Department Honors Research**

(Perm req)

Credits: 1-2

Grading Method: Regular, Pass-Fail

A laboratory research problem; required each semester during honors participation and culminating in an honors thesis.

(Sponsoring Dept: BIOL).

Contact department for information to register for this course.

BSCI399L **Biology Department Research; Biology Lab Research**

(Perm req)

Credits: 1-3

Grading Method: Regular, Pass-Fail, Audit

Research and/or integrated reading in biology under the direction and close supervision of a member of the faculty.

Contact department for information to register for this course.

BSCI401 **Animal Communication**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Prerequisite: BSCI160 and BSCI161; or BSCI106. And must have completed one semester of physics; and must have completed one semester of organic chemistry. Recommended: A course in animal behavior or biopsychology. Credit only granted for: BSCI401, BSCI 338W or BIOL 708W. Formerly: BSCI338W.

Examining the mechanisms by which animal produce and receive signals in each sensory modality; and quantifying the type and amount of information conveyed in signals and how animals attend to such information.

(Sponsoring Dept.: BIOL). Applicable toward Biological Sciences specialization areas: ECEV, GENB, and PHNB.

0101	Gerald Wilkinson	Seats (Total: 36)
	TuTh 3:30pm - 4:45pm	ESJ 2309

BSCI406 **Membranes and Biological Interfaces**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Prerequisite: Minimum grade of C- in BSCI330. Recommended: PHYS122; or PHYS132; or (PHYS260 and PHYS261). Credit only granted for: BSCI339R, BSCI406, BIOL709R. Formerly: BSCI339R.

An interdisciplinary approach to membrane biology, starting with the physical chemistry of interfaces and model systems and continuing into transport, excitability, and signaling. The course is oriented toward students with broad backgrounds in biology and biophysics. Success in the course will come from a background that prepares students to think mechanistically and quantitatively rather than having substantial factual biological knowledge.

(Sponsoring Dept.: BIOL). Acceptable toward Biological Sciences Specialization Areas: CEBG (Cell Biology category), GENB (Cell Biology category) and PHNB.

0101	Sergei Sukharev	Seats (Total: 14)
	TuTh 3:30pm - 4:45pm	PLS 1111

BSCI407 **Behavioral Genetics**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Prerequisite: Minimum grade of C- in BSCI222.

Behavior represents an organism's most dynamic phenotype and allows an animal to respond immediately to both internal and external cues. We will explore the genetic and epigenetic mechanisms that underlie behavioral variation and the associated neurological, hormonal, and developmental pathways. We will examine modern approaches used to study behavioral genetics in model and non-model systems, and in humans. Using case studies, we will explore a range of complex phenotypes including those related to mating, parental care, aggression, circadian rhythm, locomotion, learning, anxiety, and addiction.

(Sponsoring Dept.: BIOL). Acceptable toward Biological Sciences specialization areas: CEBG (Genetics), ECEV, GENB (Genetics & Evolution) , and PHNB.

0101	Heidi Fisher TuTh 2:00pm - 3:15pm	Seats (Total: 30) BPS 1228

BSCI410 Molecular Genetics

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Prerequisite: BSCI222. And must have completed CHEM233; or (CHEM231 and CHEM232).

An advanced genetics course emphasizing the molecular basis of gene structure and function in the context of modern approaches to the genetics of humans and model organisms.

(Sponsoring Dept.: CBMG) Acceptable toward Biological Sciences specialization areas: PHNB, MICB, CEBG, GENB and ECEV.

0101	Vera Stupina, Zhongchi Liu TuTh 11:00am - 12:15pm	Seats (Total: 110) HJP 0226
0102	Louisa Wu TuTh 9:30am - 10:45am	Seats (Total: 70) MCB 1207

BSCI412 Microbial Genetics

Credits: 4 Grading Method: Regular, Pass-Fail, Audit

Prerequisite: BSCI223 and BSCI222.

A laboratory/lecture based course that covers the fundamentals of mutation, mobile genetic elements and transmission genetics of microbial organisms using both classical and molecular approaches.

(Sponsoring Dept: CBMG). Acceptable toward Biological Sciences Specialization Areas: MICB, CEBG, and GENB. Students must pay a $40.00 laboratory materials fee.

0101	Vincent Lee, Erin Tran TuTh 12:30pm - 1:30pm TuTh 1:30pm - 4:30pm	Seats (Total: 18) MCB 1207 MCB 1143	 Lab
0103	Vincent Lee, Erin Tran TuTh 12:30pm - 1:30pm TuTh 1:30pm - 4:30pm	Seats (Total: 18) MCB 1207 MCB 1138	 Lab

BSCI413 **Recombinant DNA**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Prerequisite: BSCI330, BSCI223, or BSCI230; and BSCI222. Formerly: ZOOL452.

An advanced course presenting the tools and procedures of genetic engineering. Theory and practical applications of recombinant DNA techniques to understanding eukaryotic gene structure and expression.

(Sponsoring Dept.: CBMG).

Contact department for information to register for this course.

BSCI416 **Human Genetics**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit General Education: DSSP

Prerequisite: Minimum grade of C- in BSCI410. Recommended: BSCI330.

Approaches to human genetics and applications to biology and medicine focusing on specific human genetic topics using primary research papers as the main resource.

(Sponsoring Dept.: CBMG).

0101	Stephen Mount, John Moult MW 3:30pm - 4:45pm	Seats (Total: 48) ESJ 0215

BSCI417 **Microbial Pathogenesis**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit CORE: CS General Education: DSSP

Prerequisite: BSCI223 and BSCI222. Restriction: Junior standing or higher. Credit only granted for: BSCI348M or BSCI417. Formerly: BSCI348M.

Current research in microbial pathogenesis and the molecular and cellular basis of bacterial disease. Comprehensive overview of the molecular basis of pathogenesis with a focus on model microbial systems to illustrate mechanisms of disease pathogenesis. Topics covered: how microorganisms attach to and enter cells; how host cells are damaged by microbial products; how the host responds to invasion; and host-pathogen evolution.

(Sponsoring Dept.: CBMG).

0101	Kevin McIver	Seats (Total: 30)	
	TuTh 9:30am - 10:45am	BPS 1238	

BSCI420 **Cell Biology Lectures**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Prerequisite: BSCI330, BSCI222, CHEM231, and CHEM232. Credit only granted for: BSCI420 or BSCI421.

Molecular and biochemical bases of cellular organization and function in eukaryotes.

(Sponsoring Dept.: CBMG). Acceptable toward Biological Sciences Specialization Areas: PHNB, CEBG, and GENB.

0101	Vera Stupina, Sougata Roy	Seats (Total: 68)	
	TuTh 11:00am - 12:15pm	MCB 1207	

BSCI422 **Principles of Immunology**

Credits: 3 Grading Method: Regular, Pass-Fail

Prerequisite: BSCI223 and BSCI222. Recommended: BSCI330. Restriction: Junior standing or higher.

The immune system in health and disease. Presentation and analysis of the cellular and molecular processes that comprise the immune system.

(Sponsoring Dept.: CMBG). Acceptable toward Biological Sciences Specialization Areas: PHNB, MICB, CEBG, and GENB. Jointly offered with C BMG699W.

0101	Kenneth Frauwirth, David Mosser	Seats (Total: 25)	
	MW 12:00pm - 12:50pm	ESJ 2208	
	Th 12:30pm - 1:20pm	ATL 2316	Discussion

0102	Kenneth Frauwirth, David Mosser MW 12:00pm - 12:50pm F 2:00pm - 2:50pm	Seats (Total: 25) ESJ 2208 CCC 1115	Discussion
0103	David Mosser, Kenneth Frauwirth MW 12:00pm - 12:50pm F 11:00am - 11:50am	Seats (Total: 25) ESJ 2208 ATL 2316	Discussion
0104	David Mosser, Kenneth Frauwirth MW 12:00pm - 12:50pm F 1:00pm - 1:50pm	Seats (Total: 25) ESJ 2208 CCC 1115	Discussion
SES1	Sandra Fox-Moon W 6:00pm - 9:00pm *Restricted to students in the SIE Program. Click here for more information.*	Seats (Total: 20) MCB 1207	

BSCI423 **Immunology Laboratory**

Credits: 2 Grading Method: Regular, Pass-Fail

Prerequisite: BSCI223 and BSCI222. Corequisite: BSCI422. Restriction: Junior standing or higher.

Current techniques for assessment of immune status and evaluation of the immune response, including monoclonal antibody production, Western blotting, cytokine assays, ELISA and flow cytometry.

(Sponsoring Dept.: CBMG). Acceptable toward Biological Sciences Specialization Areas:PHNB, MICB, CEBG and GENB. Students must pay a $40.00 laboratory materials fee.

0101	Wenxia Song MW 2:00pm - 3:50pm	Seats (Total: 18) MCB 1143	Lab
0103	Wenxia Song MW 1:00pm - 2:50pm	Seats (Total: 18) MCB 1135	Lab

BSCI424 **Pathogenic Microbiology**

Credits: 4 Grading Method: Regular, Pass-Fail, Audit

Prerequisite: BSCI223.

The role of bacteria and fungi in the diseases of humans with emphasis upon the differentiation and culture of microorganisms, types of disease, modes of disease transmission, prophylactic, therapeutic, and epidemiological aspects.

(Sponsoring Dept.: CBMG) Acceptable toward Biological Sciences Program Specialization Areas: MICB, and GENB.

Contact department for information to register for this course.

BSCI425 **Advanced Cell Biology Lab Practices**

Credits: 2 Grading Method: Regular, Pass-Fail

Prerequisite: Must have completed BSCI330, BSCI222, CHEM231, and CHEM232; and must have completed or be concurrently enrolled in BSCI420. Credit only granted for: BSCI421, BSCI425, or BSCI348C.

Experimental techniques used to study the molecular, structural, and spatial organization of plant and animal cells. Using a combination of in vitro assays aimed at analyzing macromolecular and subcellular components and in vivo analyses designed to reveal the inner architecture of a typical eukaryotic cell, students will have an opportunity to: improve some of the basic technical and conceptual skills they acquired in an introductory cell biology course; develop a more sophisticated understanding of the nature of experimental cell manipulation; and tackle the ongoing challenge of articulating their findings in both written and oral communication.

0101	Kan Cao	Seats (Total: 20)	
	W 1:00pm - 4:50pm	PLS 1171	Lab

BSCI430 **Developmental Biology**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Prerequisite: BSCI222 and BSCI330.

Structural, functional and regulatory events and mechanisms that operate during development to produce an integrated, multicellular organism composed of a multitude of differentiated cell types.

0101	Caitlin Fox	Seats (Total: 30)
	TuTh 3:30pm - 4:45pm	PLS 1113

BSCI433 **Biology of Cancer**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Prerequisite: BSCI222 and BSCI330; or permission of CMNS-Biological Sciences UG Program.

Causes and consequences of neoplastic transformations at the biochemical and cellular levels.

(Sponsoring Dept.: BIOL). Acceptable towards Biological Sciences Specialization Areas: PHNB, CEBG, and GENB.

0101	Albert Ades TuTh 9:30am - 10:45am	Seats (Total: 100) BPS 1250

BSCI437 **General Virology**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Prerequisite: BSCI222; or permission of CMNS-Biological Sciences UG Program. Restriction: Junior standing or higher.

Discussion of the physical and chemical nature of viruses, virus cultivation and assay methods, virus replication, viral diseases with emphasis on the oncogenic viruses, viral genetics, and characteristics of the major virus groups.

(Sponsoring Dept.: CBMG). Specialization Areas: MICB, CEBG, and GENB.

0101	Jeffrey DeStefano MWF 11:00am - 11:50am	Seats (Total: 80) MCB 1207
SG91	Gilad Ofek Tu 10:45am - 1:15pm	Seats (Total: 40) BLD4 5321
	Registration is restricted to Biological Sciences- Shady Grove majors. Permission is required for all other students to enroll in courses at Shady Grove. Please email usgbiosci@umd.edu for permission.	

BSCI440 **Mammalian Physiology**

Credits: 4 Grading Method: Regular, Pass-Fail, Audit

Prerequisite: BSCI330; and (CHEM231 and CHEM232; or must have completed CHEM233). Or permission of CMNS-Biological Sciences UG Program.

A study of the cardiovascular, hemopoietic, gastrointestinal, renal and respiratory systems. Chemical and endocrine regulation of physiological functions in mammals. Course does not count as an upper level lab for BIOL majors (see BSCI441).

(Sponsoring Dept.: BIOL). Acceptable toward Biological Sciences Specialization Areas: PHNB, and GENB.

0101	Justicia Opoku-Edusei MWF 9:00am - 9:50am M 12:00pm - 1:50pm	Seats (Total: 30) ESJ 1224 PLS 1111	Discussion
0102	Justicia Opoku-Edusei MWF 9:00am - 9:50am Tu 12:30pm - 2:20pm	Seats (Total: 30) ESJ 1224 PHY 0405	Discussion
0103	Justicia Opoku-Edusei MWF 9:00am - 9:50am W 10:00am - 11:50am	Seats (Total: 30) ESJ 1224 PLS 1113	Discussion
0104	Justicia Opoku-Edusei MWF 9:00am - 9:50am M 12:00pm - 1:50pm	Seats (Total: 30) ESJ 1224 PLS 1119	Discussion
0201	Scott Juntti MWF 10:00am - 10:50am M 2:00pm - 3:50pm	Seats (Total: 30) ESJ 1224 PLS 1111	Discussion
0202	Scott Juntti MWF 10:00am - 10:50am Tu 2:00pm - 3:50pm	Seats (Total: 30) ESJ 1224 SPH 0305	Discussion
0203	Scott Juntti MWF 10:00am - 10:50am W 12:00pm - 1:50pm	Seats (Total: 30) ESJ 1224 PLS 1111	Discussion
0204	Scott Juntti MWF 10:00am - 10:50am F 2:00pm - 3:50pm	Seats (Total: 30) ESJ 1224 CHM 0122	Discussion
SES1	Justicia Opoku-Edusei Tu 6:00pm - 9:00pm Th 6:00pm - 9:00pm *Restricted to students in the SIE Program. Click here for more information.*	Seats (Total: 30) PLS 1140 PLS 1140	Discussion

BSCI441 **Mammalian Physiology Laboratory**

Credits: 2 Grading Method: Regular, Pass-Fail, Audit

Prerequisite: Must have completed or be concurrently enrolled in BSCI440.

Laboratory exercises in experimental mammalian physiology.

(Sponsoring Dept.: BIOL). Acceptable toward Biological Sciences Program Specialization Areas: PHNB and GENB. Students must pay a $40.00 laboratory materials fee.

0101	Carmen Cantemir-Stone M 1:00pm - 1:50pm Tu 2:00pm - 5:50pm	Seats (Total: 20) BPS 1243 PLS 1181	 Lab
0102	Carmen Cantemir-Stone M 1:00pm - 1:50pm W 2:00pm - 5:50pm	Seats (Total: 20) BPS 1243 PLS 1181	 Lab
0104	Carmen Cantemir-Stone M 1:00pm - 1:50pm M 2:00pm - 5:50pm	Seats (Total: 20) BPS 1243 PLS 1181	 Lab

BSCI442 **Plant Physiology**

Credits: 4 Grading Method: Regular, Pass-Fail, Audit

Prerequisite: BSCI170 and BSCI171; or BSCI105; or PLSC201. And CHEM231 and CHEM232; or CHEM237; or permission of CMNS-Biological Sciences UG Program; or permission of AGNR-Plant Science & Landscape Architecture department. Cross-listed with PLSC400. Credit only granted for: BSCI442 or PLSC400.

A survey of plant physiology and development and responses and adaptation to the environment

(Sponsoring Dept.: BSCI) Students must pay a $40.00 laboratory materials fee.

0101	Candace Pritchard MWF 1:00pm - 1:50pm Tu 9:00am - 12:00pm	Seats (Total: 24) PLS 1130 PLS 1153	 Lab
0102	Candace Pritchard MWF 1:00pm - 1:50pm Tu 4:30pm - 7:30pm	Seats (Total: 24) PLS 1130 PLS 1153	 Lab

BSCI446 **Neural Systems**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Prerequisite: Minimum grade of C- in BSCI330 and BSCI353.

Neural development, followed by sensory, motor and integrative system organization in the central nervous system.

(Sponsoring Dept.: BIOL) Acceptable toward Biological Sciences Program Specialization Areas: PHNB, and GENB.

0101	Ricardo Araneda	Seats (Total: 40)
	TuTh 12:30pm - 1:45pm	PLS 1119

BSCI447 **General Endocrinology**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Prerequisite: BSCI330, CHEM241, and CHEM242.

Functions and dysfunctions of the endocrine system with special reference to mammals.

(Sponsoring Dept.: ENTM). Acceptable toward Biological Sciences Program Specialization Areas: PHNB, and GENB.

0101	Tammatha O'Brien	Seats (Total: 70)
	TuTh 11:00am - 12:15pm	PLS 1140

BSCI452 **Diseases of the Nervous System**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Prerequisite: Minimum grade of C- in BSCI330; and minimum grade of C- in BSCI353. Jointly offered with NACS728, BIOL708. Credit only granted for: BSCI452, BSCI338N, BIOL708E, or NACS728N. Formerly: BSCI338N.

An advanced course covering the neuroanatomy, function, and organization of the nervous system and its implication for pathology and disease.

(Sponsoring Dept.: BIOL) Acceptable toward Biological Sciences Program Specialization Areas: PHNB, and GENB.

0101	Quentin Gaudry	Seats (Total: 40)
	TuTh 2:00pm - 3:15pm	BPS 0283

BSCI454 **Neurobiology Laboratory**

Credits: 1

Grading Method: Regular, Pass-Fail

Prerequisite: Minimum grade of C- in BSCI330; and must have completed or be concurrently enrolled in BSCI353; and must have completed or be concurrently enrolled in PHYS122, PHYS132, or PHYS142.

Basic neuroanatomical techniques, intracellular and extracellular recordings of electrical potentials from nerve and muscle.

(Sponsoring Dept.: BIOL). Specialization areas: CEBG, PHNB, and GENB. Students must pay a $40.00 laboratory materials fee.

0101	Hilary Bierman M 1:00pm - 4:00pm	Seats (Total: 20) BPS 0257	 Lab
0102	Hilary Bierman Tu 12:30pm - 3:30pm	Seats (Total: 20) BPS 0257	 Lab
0103	Hilary Bierman W 1:00pm - 4:00pm	Seats (Total: 20) BPS 0257	 Lab
SG91	David Sandstrom Tu 2:00pm - 4:50pm *Registration is restricted to Biological Sciences- Shady Grove majors. Permission is required for all other students to enroll in courses at Shady Grove. Please email usgbiosci@umd.edu for permission.*	Seats (Total: 16) BLD4 5322	 Lab
SG92	David Sandstrom Th 2:00pm - 4:50pm *Registration is restricted to Biological Sciences- Shady Grove majors. Permission is required for all other students to enroll in courses at Shady Grove. Please email usgbiosci@umd.edu for permission.*	Seats (Total: 16) BLD4 5322	 Lab

BSCI462 **Population Ecology**

Credits: 3

Grading Method: Regular, Pass-Fail, Audit

Prerequisite: MATH130, MATH136, or MATH140; and BSCI361.

Theory of population growth and regulation, life tables, and theory of competition and predation, evolution in ecological settings, community structure and dynamics.

(Sponsoring Dept.: BIOL). Acceptable toward Biological Sciences Program Specialization Areas: ECEV, and GENB.

0101	Karen Lips	Seats (Total: 35)
	TuTh 9:30am - 10:45am	BPS 0283

BSCI473 **Marine Ecology**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Prerequisite: BSCI207.

Courses in evolution and animal behavior are strongly recommended. A detailed analysis of the evolutionary ecology of marine invertebrates; emphasis on testing of theories and on current literature.

(Sponsoring Dept: BIOL). Acceptable toward Biological Sciences specialization areas: ECEV and GENB.

0101	Marjorie Reaka	Seats (Total: 45)
	TuTh 12:30pm - 1:45pm	BPS 0283

BSCI480 **Arthropod Form and Function**

Credits: 4 Grading Method: Regular, Pass-Fail, Audit

Prerequisite: Permission of CMNS-Entomology (AGNR).

Survey of the morphological, systematic and physiological diversity of the phylum Arthropoda.

0101	Jeffrey Shultz	Seats (Total: 20)	
	MWF 10:00am - 10:50am	PLS 1146	
	M 2:00pm - 5:00pm	PLS 1161	Lab

BSCV CIVICUS Spring 2020

BSCV182 **Civicus and Service-Learning**

Credits: 1 Grading Method: Regular, Pass-Fail, Audit

Prerequisite: BSCV191 and BSCV181; and must have completed or be concurrently enrolled in SOCY105. Restriction: Must be in the Civicus program. Credit only granted for: BSOS182 or BSCV182. Formerly: BSOS182.

Students will examine domestic societal issues and their national, regional, and local dimensions from political, economic, and policy perspectives. Students will work with local direct service non-profit organizations.

0101	Julie Randolph M 3:00pm - 4:20pm	Seats (Total: 26) SOM 0101
0201	Julie Randolph M 4:30pm - 5:50pm	Seats (Total: 26) SOM 0101

BSCV302 **Civicus Capstone**

(Perm req)

Credits: 3 | Grading Method: Regular, Pass-Fail, Audit | General Education: DSSP

Prerequisite: BSCV301. Restriction: Sophomore standing or higher. Credit only granted for: BSOS302 or BSCV302. Formerly: BSOS302.

Capstone course required for CIVICUS citation. Supervised internship, community service, or research project on civil society topic. Application and continued study of skills and concepts, grounded in the social sciences, relevant to understanding and effectively dealing with contemporary social issues.

By permission of instructor.

0101	Korey Rothman, Amy Dickinson W 6:00pm - 6:50pm Class time/details on ELMs	Seats (Total: 25) HJP 0226 ONLINE	 Discussion
0201	Korey Rothman Tu 6:00pm - 6:50pm Class time/details on ELMs	Seats (Total: 25) SKN 0200 ONLINE	 Discussion

BSCV309 **Civicus Seminar**

(Perm req)

Credits: 1 | Grading Method: Regular, Pass-Fail, Audit

Review and analysis of contemporary social issues.

Contact department for information to register for this course.

BSGC Global Communities Spring 2020

BSGC102 **Global Issues**

(Perm req)

Credits: 3 | Grading Method: Regular, Pass-Fail, Audit | CORE: IE | General Education: DSHS, DVUP

Prerequisite: BSGC101. Restriction: Must be in Global Communities Living-Learning program.

A survey of some of the major global challenges facing society today, such as human trafficking, nuclear security, and global health. We explore contending approaches to resolving problems, culminating in a major group project.

0101	Virginia Haufler Tu 3:30pm - 4:45pm Th 11:00am - 12:15pm	Seats (Total: 26) TWS 0310 DOR 0134	Discussion
0102	Virginia Haufler Tu 3:30pm - 4:45pm Th 2:00pm - 3:15pm	Seats (Total: 24) TWS 0310 DOR 0134	Discussion
0103	Virginia Haufler Tu 3:30pm - 4:45pm Th 9:30am - 10:45am	Seats (Total: 23) TWS 0310 DOR 0134	Discussion

BSGC398A **BSGC Experiential Learning in Global Communities: Global Service; Alternative Break/International Service**

(Perm req)

Credits: 3

Grading Method: Regular, Pass-Fail, Audit

General Education: DVCC

Experiential learning is an integral element of the Global Communities program. Students will gain an understanding of social issues in marginalized communities, engage in service-learning, and develop an action plan for civic engagement in a diverse global society.

Restriction: Must be in Global Communities Living-Learning program. GC students who receive acceptance into select Alternate Breaks or International Service programs can apply for Global Experience credit by enrolling in BSGC 398A. This course will meet periodically throughout the semester and will require directed readings, reflective writings, and projects related to your Alternative Break/International Service experience.

0101	Natalie Vinski Ibrahim Contact instructor or department for details.	Seats (Total: 40)

BSGC399 **Topical Investigations in Global Communities**

Credits: 1-3

Grading Method: Regular, Pass-Fail, Audit

Variable from 1-3 credits and repeatable up to 6 if content varies.

Restriction: Must be in Global Communities Living-Learning Program.

0101	Virginia Haufler Contact instructor or department for details.	Seats (Total: 5)

BSOS Behavioral and Social Sciences Spring 2020

BSOS233 **Data Science for the Social Sciences**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Restriction: Must be enrolled in a BSOS major; or permission of instructor.

An introduction to modern methods of data analysis for social scientists. This course emphasizes teaching students who have no previous coding experience how to analyze data and extract meaning in a social science context. Students will gain critical programming skills and learn inferential thinking through examples and projects with real-world relevance.

0101	Brian Kim	Seats (Total: 25)
	TuTh 12:30pm - 1:45pm	ASY 3215

BSOS248A **Leadership Seminar I; Leadership Seminar I Ambassadors**

(Perm req)

Credits: 2 Grading Method: Regular, Pass-Fail

A topics course in the behavioral and social sciences designed to develop student leaders with skills that will address important issues of the college and offers diverse viewpoints intended to challenge common perceptions of leadership, technology programs and communication.

Contact department for information to register for this course.

BSOS248P **Leadership Seminar I; Peer Mentors**

Credits: 1 Grading Method: Regular, Pass-Fail

A topics course in the behavioral and social sciences designed to develop student leaders with skills that will address important issues of the college and offers diverse viewpoints intended to challenge common perceptions of leadership, technology programs and communication.

Contact department for information to register for this course.

BSOS288I **Special Topics in Behavioral and Social Sciences; Internship Practicum in the Social Sciences**

(Perm req)

Credits: 1-3 Grading Method: Regular, Pass-Fail

Introductory special topics course focusing on an interdisciplinary topic related to behavioral and social sciences.

Contact department for information to register for this course.

BSOS331 **Python Programming for the Social Sciences**

Credits: 1 | Grading Method: Regular, Pass-Fail, Audit

Prerequisite: Students must have completed a least one college-level statistics course. Restriction: Must be enrolled in a BSOS major; or permission of instructor. Cross-listed with: BSOS631. Jointly offered with: BSOS331. Credit only granted for: BSOS331 or BSOS631.

Python has become the most powerful programming language in advanced statistics and data analytics. It includes expansive packages for data handling and processing, including the latest developments in machine learning, and offers Integrated Development Environments (IDE) for code development, testing, debugging, and graphical representation. In addition, python is deployed on virtually all high performance computing clusters, taking advantage of multi-processing, large memory, and GPU enhanced computing environments. This course offers a thorough introduction to python and those packages that are fundamental to data processing and analysis, image processing, natural language processing, machine learning.

0101	Franz Klein	Seats (Total: 25)
	M 4:00pm - 6:00pm	LEF 0227

BSOS355 **Social Sciences Internship Practicum**

(Perm req)

Credits: 3 | Grading Method: Regular, Pass-Fail | General Education: DSSP

Restriction: Must have earned a minimum of 60 credits; and minimum cumulative GPA of 2.5; and must have completed at least 1 semester at UMD. Credit only granted for: BSOS388I or BSOS355. Formerly: BSOS388I.

BSOS 355 is an internship course open to all majors. It will enable students to articulate and apply the scholarship from the discipline related to their specific internship placement into a real-work environment.

0101	Kathryn Hopps	Seats (Total: 40)
	Contact instructor or department for details.	

BSOS358A **Leadership Practicum II; Ambassadors**

(Perm req)

Credits: 1 | Grading Method: Regular, Pass-Fail

This course puts into practice the advanced skills and elements learned in the seminar series that directly benefit the college.

Contact department for information to register for this course.

BSOS358D **Leadership Practicum II; Leadership Practicum II DSAC**

(Perm req)

Credits: 1

Grading Method: Regular, Pass-Fail

This course puts into practice the advanced skills and elements learned in the seminar series that directly benefit the college.

Contact department for information to register for this course.

BSOS358L **Leadership Practicum II; DSAC Officers**

(Perm req)

Credits: 1

Grading Method: Regular, Pass-Fail

This course puts into practice the advanced skills and elements learned in the seminar series that directly benefit the college.

Contact department for information to register for this course.

BSOS358P **Leadership Practicum II; Peer Mentors**

(Perm req)

Credits: 1

Grading Method: Regular, Pass-Fail, Audit

This course puts into practice the advanced skills and elements learned in the seminar series that directly benefit the college.

Contact department for information to register for this course.

BSOS386 **Experiential Learning**

(Perm req)

Credits: 3-6

Grading Method: Regular, Pass-Fail

Contact department for information to register for this course.

BSOS388B **Behavioral and Social Sciences Special Topics; Innovation and Social Change: Do Good Now**

Credits: 3

Grading Method: Regular, Pass-Fail, Audit

General Education: DSSP, SCIS

Advanced special topics course focusing on an interdisciplinary topic related to the Behavioral and Social Sciences.

Cross-listed with HONR348D and PLCY388D. Credit will be granted for BSOS388B, HONR348D or PLCY388D.

0101	Tricia Homer	Seats (Total: 17)
	W 3:00pm - 5:30pm	SQH 1121

BSOS388C **Behavioral and Social Sciences Special Topics; Innovate Maryland Consulting Practicum**

(Perm req)

Credits: 3

Grading Method: Regular, Pass-Fail, Audit

Advanced special topics course focusing on an interdisciplinary topic related to the Behavioral and Social Sciences.

0101	Megan Benefiel, Joseph Drasin W 4:00pm - 7:00pm	Seats (Total: 10) ESJ 1102

BSOS388E **Behavioral and Social Sciences Special Topics; CIDCM Minor Practicum**

(Perm req)

Credits: 1

Grading Method: Regular, Pass-Fail, Audit

Advanced special topics course focusing on an interdisciplinary topic related to the Behavioral and Social Sciences.

Contact department for information to register for this course.

BSOS388F **Behavioral and Social Sciences Special Topics; Innovation in the Public Sector**

Credits: 3

Grading Method: Regular, Pass-Fail, Audit

Advanced special topics course focusing on an interdisciplinary topic related to the Behavioral and Social Sciences.

Prerequisite: PSYC100, GVPT100 or ECON200. Cross-listed with GVPT388B. Credit will be granted for BSOS388F or GVPT 388B. Restricted to BSOS majors.

0101	Katie Gerbes, Kenneth Ulman W 4:00pm - 6:30pm	Seats (Total: 20) CHT 2113

BSOS388Q **Behavioral and Social Sciences Special Topics; CESAR Directed Study**

(Perm req)

Credits: 1-3

Grading Method: Regular, Pass-Fail, Audit

Advanced special topics course focusing on an interdisciplinary topic related to the Behavioral and Social Sciences.

Contact department for information to register for this course.

BSOS388T **Behavioral and Social Sciences Special Topics; Sustainability Task Force**

(Perm req)

Credits: 1

Grading Method: Regular, Pass-Fail

Advanced special topics course focusing on an interdisciplinary topic related to the Behavioral and Social Sciences.

Must be a member of the BSOS Sustainability Task Force. Contact bsos-ugdean@umd.edu for more information. Repeatable: Up to 3 credits. A student leadership group engaged in the implementation of the BSOS Sustainability Plan. As part of this course, students will explore current topics in sustainability through semester-long projects. This course is part of the BSOS Solutions Lab.

Contact department for information to register for this course.

BSOS388X **Behavioral and Social Sciences Special Topics; Innovation in the Public Sector II**

(Perm req)

Credits: 3

Grading Method: Regular, Pass-Fail, Audit

Advanced special topics course focusing on an interdisciplinary topic related to the Behavioral and Social Sciences.

Prerequisites: BSOS388F or GVPT388B For permission to register, email bsos-ugdean@umd.edu. with your name, UID, and brief statement of why this course is of interest to you.

0101	Kenneth Ulman	Seats (Total: 20)
	W 4:00pm - 6:30pm	CHT 2113

BSOS399 **Directed Study in Behavioral and Social Sciences**

(Perm req)

Credits: 1-6

Grading Method: Regular, Pass-Fail, Audit

Guidance for the advanced student capable of interdisciplinary study on special projects under the supervision of the Assistant Dean for Student Affairs.

Contact department for information to register for this course.

BSOS399C **Directed Study in Behavioral and Social Sciences; Civicus Undergraduate Teaching Assistant Directed Study**

(Perm req)

Credits: 1-3

Grading Method: Regular, Pass-Fail

Guidance for the advanced student capable of interdisciplinary study on special projects under the supervision of the Assistant Dean for Student Affairs.

Contact department for information to register for this course.

BSOS399Q **Directed Study in Behavioral and Social Sciences; CESAR**

(Perm req)

Credits: 1

Grading Method: Regular, Pass-Fail, Audit

Guidance for the advanced student capable of interdisciplinary study on special projects under the supervision of the Assistant Dean for Student Affairs.

Contact department for information to register for this course.

BSOS448C **Teaching Assistant Practicum; Civicus**

(Perm req)

Credits: 1-3 Grading Method: Regular, Pass-Fail

Supervised practicum for teaching assistants for BSOS/UNIV courses.

Contact department for information to register for this course.

BSOS448D **Teaching Assistant Practicum**

(Perm req)

Credits: 1 Grading Method: Regular, Pass-Fail, Audit

Supervised practicum for teaching assistants for BSOS/UNIV courses.

Contact department for information to register for this course.

BSOS448I **Teaching Assistant Practicum; Internship**

(Perm req)

Credits: 1 Grading Method: Regular, Pass-Fail

Supervised practicum for teaching assistants for BSOS/UNIV courses.

Contact department for information to register for this course.

BSOS448T **Teaching Assistant Practicum; Teaching Assistant Practicum (UNIV)**

(Perm req)

Credits: 1 Grading Method: Regular, Pass-Fail

Supervised practicum for teaching assistants for BSOS/UNIV courses.

Contact department for information to register for this course.

BSOS631 **Python Programming for the Social Sciences**

Credits: 1 Grading Method: Regular, Audit, Sat-Fail

Prerequisite: Students must have completed a least one college-level statistics course. Restriction: Must be enrolled in a BSOS major; or permission of instructor. Cross-listed with: BSOS331. Jointly offered with: BSOS331. Credit only granted for: BSOS331 or BSOS631.

Python has become the most powerful programming language in advanced statistics and data analytics. It includes expansive packages for data handling and processing, including the latest developments in machine learning, and offers Integrated Development Environments (IDE) for code development, testing, debugging, and graphical representation. In addition, python is deployed on virtually all high performance computing clusters, taking advantage of multi-processing, large memory, and GPU enhanced computing environments. This course offers a thorough introduction to python and those packages that are fundamental to data processing and analysis, image processing, natural language processing, machine learning.

0101	Franz Klein	Seats (Total: 5)
	M 4:00pm - 6:00pm	LEF 0227

BSST Terrorism Studies Spring 2020

BSST331 **Response to Terrorism**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Restriction: Must be in the Terrorism Studies minor program.

Explore the manners in which stats respond to terrorist incidents and the threat of terrorism through counterterrorism approaches and strategies. We will examine counterterrorism responses from law enforcement, military, and the intelligence community. This will include discussions about policy decisions made in response to both terrorist attacks and the threat of terrorism. Counterterrorism strategies this course will cover include deterrence, interdiction, and legal efforts to combat terrorism, including terrorist financing and online recruitment. The course is divided into four general parts. First, we will provide an overview of government counterterrorism options and review key concepts. Second, we will examine law enforcement responses to terrorism including efforts to counter cyberterrorism, social media recruitment, and terrorist financing online. Third, we will focus on military responses to attacks conducted by terrorist groups, including deterrence strategies, targeted strikes, and covert operations. Last, we will review the challenges and complexities of counterterrorism approaches, including the ethical, moral, and legal dilemmas.

Restricted to students in one of the following minors: IDCM, Gobal Poverty Minor, or International Engineering.

0101	Thomas Guarrieri	Seats (Total: 35)
	M 2:00pm - 4:45pm	TWS 1310
	Restricted to students in the Global Terrorism Minor; to obtain permission email education@start.umd.edu.	

0201	Thomas Guarrieri	Seats (Total: 10)
	M 2:00pm - 4:45pm	TWS 1310
	Restricted to students in the IDCM Minor, Global Poverty Minor, Int'l Engineering Minor, and Global Engineering Leadership Minor. To obtain permission email: education@start.umd.edu.	

BSST338B **Special Topics in Terrorism Studies; Terrorism and Political Violence: Understanding Terrorism, Insurgency, and Civil Conflict**

Credits: 3

Grading Method: Regular, Pass-Fail, Audit

A special topics course for students in the Global Terrorism Minor program. Topics that may be offered are Psychology of Terrorism; Development of Counterterrorism Policies and Programs; Terrorism and Popular Culture; Terrorism and the Media; International Perspective on Terrorism and Counterterrorism (Education Abroad); The Evolution of Hezbollah; Terrorism and Small Wars; Political Islam in the West.

SG91	Steve Sin	Seats (Total: 30)
	M 9:30am - 12:00pm	BLD3 3220
	Restrictions: Limit to CCJS students at Shady Grove	

BSST338F **Special Topics in Terrorism Studies; Media in War and Crisis**

Credits: 3

Grading Method: Regular, Pass-Fail, Audit

A special topics course for students in the Global Terrorism Minor program. Topics that may be offered are Psychology of Terrorism; Development of Counterterrorism Policies and Programs; Terrorism and Popular Culture; Terrorism and the Media; International Perspective on Terrorism and Counterterrorism (Education Abroad); The Evolution of Hezbollah; Terrorism and Small Wars; Political Islam in the West.

Contact department for information to register for this course.

BSST338I **Special Topics in Terrorism Studies; Arab-Israeli Relations**

Credits: 3

Grading Method: Regular, Pass-Fail, Audit

A special topics course for students in the Global Terrorism Minor program. Topics that may be offered are Psychology of Terrorism; Development of Counterterrorism Policies and Programs; Terrorism and Popular Culture; Terrorism and the Media; International Perspective on Terrorism and Counterterrorism (Education Abroad); The Evolution of Hezbollah; Terrorism and Small Wars; Political Islam in the West.

Contact department for information to register for this course.

BSST338N **Special Topics in Terrorism Studies; Arms Control in the Nuclear Realm**

Credits: 3

Grading Method: Regular, Pass-Fail, Audit

A special topics course for students in the Global Terrorism Minor program. Topics that may be offered are Psychology of Terrorism; Development of Counterterrorism Policies and Programs; Terrorism and Popular Culture; Terrorism and the Media; International Perspective on Terrorism and Counterterrorism (Education Abroad); The Evolution of Hezbollah; Terrorism and Small Wars; Political Islam in the West.

Contact department for information to register for this course.

BSST338R **Special Topics in Terrorism Studies; Far-Right Extremism: Violent Ideologies and Actions**

Credits: 3

Grading Method: Regular, Pass-Fail

A special topics course for students in the Global Terrorism Minor program. Topics that may be offered are Psychology of Terrorism; Development of Counterterrorism Policies and Programs; Terrorism and Popular Culture; Terrorism and the Media; International Perspective on Terrorism and Counterterrorism (Education Abroad); The Evolution of Hezbollah; Terrorism and Small Wars; Political Islam in the West.

0101	Elizabeth Yates W 2:00pm - 4:45pm	Seats (Total: 30) TYD 0101
0201	Elizabeth Yates W 2:00pm - 4:45pm *Restricted to students in the Global Terrorism Minor.*	Seats (Total: 10) TYD 0101

BSST338Y **Special Topics in Terrorism Studies; Seminar in Terrorism Studies: The New Theater of Terror: Online Terrorism**

Credits: 3

Grading Method: Regular, Pass-Fail, Audit

A special topics course for students in the Global Terrorism Minor program. Topics that may be offered are Psychology of Terrorism; Development of Counterterrorism Policies and Programs; Terrorism and Popular Culture; Terrorism and the Media; International Perspective on Terrorism and Counterterrorism (Education Abroad); The Evolution of Hezbollah; Terrorism and Small Wars; Political Islam in the West.

Also offered as ISRL448V. Credit granted for ISRL448V and BSST338Y. This course examines the relationships between modern terrorists and the new media, how terrorists use the online platforms, how democracies can respond to the challenge, and what are the prices of various measures.

0101	Gabriel Weimann **Meets March 23, 2020 - May 12, 2020** Class time/details on ELMs	Seats (Total: 25) ONLINE

BSST358J **Special Topics in Study Abroad III; Disaster Recovery in Japan**

Credits: 3 | Grading Method: Regular, Pass-Fail, Audit

Special topics course taken as part of an approved study abroad program.

Contact department for information to register for this course.

BSST386 **Experiential Learning in Terrorism Studies**

(Perm req)

Credits: 1-5 | Grading Method: Regular, Pass-Fail

This course will supplement student's experiential learning experience, or internship in the field of terrorism studies and homeland security with guided reflection on their experiences.

0101	Elizabeth Wasden	Seats (Total: 25)
	Contact instructor or department for details.	

BSST389 **Internship in Terrorism Studies**

Credits: 1-6 | Grading Method: Regular, Pass-Fail

Supplements student's experiential learning experience, or internship in the field of terrorism studies and homeland security, with guided reflection on their experiences.

Supplements student's experiential learning experience, or internship in the field of terrorism studies and homeland security, with guided reflection on their experiences.

0101	Elizabeth Wasden	Seats (Total: 25)
	Class time/details on ELMs	ONLINE

BSST399T **Individual Study in Terrorism Studies; Teaching Terrorism**

(Perm req)

Credits: 3 | Grading Method: Regular, Pass-Fail, Audit

An independent study course for students in the Global Terrorism Minor program.

Prerequisite: permission of department.

0101	Elizabeth Wasden	Seats (Total: 6)
	Contact instructor or department for details.	
0102	Elizabeth Wasden	Seats (Total: 5)
	Contact instructor or department for details.	

0103	Elizabeth Wasden	Seats (Total: 5)
	Contact instructor or department for details.	

BSST631 **Societal Impacts of and Responses to Terrorism**

Credits: 3

Grading Method: Regular,
Audit, Sat-Fail

Restriction: Must be in Terrorism Analysis Graduate Certificate Program; or permission of department. Credit only granted for: BSOS631 or BSST631. Formerly: BSOS631.

Explores the manners in which a variety of different actors respond to both terrorist incidents and the threat of terrorism. Examines local responses to terrorist incidents; local impacts of terrorism including effects on individual and group attitudes and behaviors; policy decisions made in response to both terrorist attacks and the threat of terrorism; terrorism prevention, deterrence, interdiction, and mitigation efforts; and individual and community recovery from terrorist attacks.

Restricted to students in the Graduate Certificate in Terrorism Analysis, all other students should contact education@start.umd.edu to obtain permission to register.

ST01	Michael Egnoto	Seats (Total: 35)
	Tu 6:00pm - 8:30pm	ONLINE
	Restricted to students in the Graduate Certificate in Terrorism Analysis, all other students should contact education@start.umd.edu to obtain permission to register.	

BSST633 **Research Methods in Terrorism and Counterterrorism**

Credits: 3

Grading Method: Regular,
Audit, Sat-Fail

Credit only granted for: BSOS633 or BSST633. Formerly: BSOS633.

Provides students with the opportunity to conduct original research, while exposing them to analytical tools relevant to the study of terrorism. Students will work with a range of data sources on domestic and international terrorism, and will be tasked with using data to test hypotheses related to the causes, behaviors, and/ or impacts of terrorism.

ST01	Marcus Boyd	Seats (Total: 30)
	M 6:00pm - 8:30pm	ONLINE

BSST638J **Special Topics in Terrorism Studies; Disaster Recovery in Japan**

Credits: 3

Grading Method: Regular,
Audit, Sat-Fail

A special topics course for students in the Global Terrorism Minor program. Topics that may be offered are Psychology of Terrorism; Development of Counterterrorism Policies and Programs; Terrorism and Popular Culture; Terrorism and the Media; International Perspective on Terrorism and Counterterrorism (Education Abroad); The Evolution of Hezbollah; Terrorism and Small Wars; Political Islam in the West.

Contact department for information to register for this course.

BUAC Accounting and Information Assurance — Spring 2020

BUAC706 **Business Ethics for Accountants and Auditors**

(Perm req)

Credits: 2 Grading Method: Regular, Sat-Fail

Restriction: Must be in Business and Management (Master's) program. Credit only granted for: BUAC765 or BUAC706. Formerly: BUAC765.

Considers all facets of business ethics issues within an accounting and auditing context. Ethical theory, corporate social responsibility, and individual decision-making are considered. Some of the applied topics that may be covered in this course include, but are not limited to, intellectual property issues, corporate downsizing, outsourcing, global ethics, crises management, and employment ethics.

0501	Jeffrey Milton	Seats (Total: 0)
	Meets January 21, 2020 - March 9, 2020	
	TuTh 2:00pm - 3:50pm	VMH 1511

BUAC714 **Forensic Accounting/Auditing**

(Perm req)

Credits: 2 Grading Method: Regular, Sat-Fail

Restriction: Must be in Business and Management (Master's) program; or permission of BMGT-Robert H. Smith School of Business. Credit only granted for: BUAC792 or BUAC714. Formerly: BUAC792.

Provides a theoretical background and practical application of fraud examinations and corporate investigations. Fraud prevention, detection, investigation, and related matters such as courtroom procedures will be included. Also considered are topics such as FCPA and securities fraud. A wide variety of teaching tools are used.

0501	Ariel Ramirez, David Hilton	Seats (Total: 0)
	Meets March 23, 2020 - May 8, 2020	
	MW 6:00pm - 7:50pm	VMH 1505

BUAC723 **Essentials of Negotiation**

(Perm req)

Credits: 2

Grading Method: Regular, Sat-Fail

Restriction: Must be in Business and Management (Master's) program; or permission of BMGT-Robert H. Smith School of Business. Credit only granted for: BUMO794 or BUAC723. Formerly: BUMO794.

This highly experiential course will improve students' negotiation skills and capacity to acquire and effectively use bargaining power. By using a variety of assessment tools, feedback sources, skill-building exercises, and exercise debriefings, the class will increase students' negotiating self-confidence and improve their capacity to claim value and achieve win-win solutions to individual, team, and organizational problems. The course is designed to enhance students' negotiating self-confidence and improve students' analytical and decision-making skills (e.g., understanding bargaining zones, knowing when an agreement can be made and when to walk away; learning how to prepare for negotiations), interpersonal skills, creativity (e.g., identifying creative solutions to conflict), and persuasive abilities.

0501	Rellie Rozin	Seats (Total: 0)
	Meets March 23, 2020 - May 8, 2020	
	TuTh 12:00pm - 1:50pm	VMH 1505

BUAC756 **Informtion Security, Audit and Control**

(Perm req)

Credits: 2

Grading Method: Regular, Sat-Fail

Restriction: Must be in Business and Management (Master's) program; or permission of BMGT-Robert H. Smith School of Business. Credit only granted for: BUAC790 or BUAC756. Formerly: BUAC790.

Builds on basic information technology (IT) courses, focusing on key issues including IT security, IT controls, and IT auditing. Addressing issues such as auditing a computer information system; assessing risks; identifying control objectives; identifying appropriate audit procedures; learning the concepts and basic features or audit software thereby providing the tools for choosing audit software; conducting an operational audit basic controls over computer information systems; and developing world-class IT control frameworks.

0501	David Sites	Seats (Total: 0)
	Meets March 23, 2020 - May 8, 2020	
	MW 4:00pm - 5:50pm	VMH 1511

BUAC758B **Special Topics in Accounting and Information Assurance; Valuation for Accounting**

(Perm req)

Credits: 2

Grading Method: Regular, Sat-Fail

Selected advanced topics in the various fields of graduate study in accounting and information assurance.

0501	Brent Solomon	Seats (Total: 0)
	Meets January 21, 2020 - March 9, 2020	
	TuTh 10:00am - 11:50am	VMH 1505

BUAC758F **Special Topics in Accounting and Information Assurance; Intermediate Accounting III**

(Perm req)

Credits: 2 Grading Method: Regular, Sat-Fail

Selected advanced topics in the various fields of graduate study in accounting and information assurance.

0501	Stephen Brown	Seats (Total: 0)
	Meets January 21, 2020 - March 9, 2020	
	TuTh 12:00pm - 1:50pm	VMH 1330

BUAC758G **Special Topics in Accounting and Information Assurance; Accounting Analytics**

(Perm req)

Credits: 2 Grading Method: Regular, Sat-Fail

Selected advanced topics in the various fields of graduate study in accounting and information assurance.

0501	Lei Zhou	Seats (Total: 0)
	Meets January 21, 2020 - March 9, 2020	
	TuTh 4:00pm - 5:50pm	VMH 1505

BUAC758O **Special Topics in Accounting and Information Assurance; EXTERNAL AUDITING**

(Perm req)

Credits: 3 Grading Method: Regular, Sat-Fail

Selected advanced topics in the various fields of graduate study in accounting and information assurance.

0501	James McKinney	Seats (Total: 0)
	MW 2:00pm - 3:15pm	VMH 1307

BUAC759 **Independent Study in Accounting and Information Assurance**

(Perm req)

Credits: 1-6 Grading Method: Regular, Sat-Fail

Independent study for masters students in accounting and information assurance.

Contact department for information to register for this course.

BUAC764 **Tax II: Taxation of Corporations & Other Entities**

(Perm req)

Credits: 2

Grading Method: Regular, Sat-Fail

Restriction: Must be in Business and Management (Master's) program; or permission of BMGT-Robert H. Smith School of Business. Credit only granted for: BUAC758V or BUAC764. Formerly: BUAC758V.

Students have the opportunity to gain an understanding of the basic tax competencies required for determining the appropriate tax structure for businesses; issue identification; active listening; solving tax problems.

0501	Eugene Cantor	Seats (Total: 0)
	Meets January 21, 2020 - March 9, 2020	
	MW 12:00pm - 1:50pm	VMH 1511

BUAC767 **Tax IV: Real Estate Taxation**

(Perm req)

Credits: 2

Grading Method: Regular, Sat-Fail

Restriction: Must be in Business and Management (Master's) program; or permission of BMGT-Robert H. Smith School of Business. Credit only granted for: BUAC758X or BUAC767. Formerly: BUAC758X.

Provides an in-depth examination of the tax provisions and opportunities for planning transactions that involve real estate investments and transactions. The course covers the tax implications of purchasing, holding, and selling real property. These include the determination of tax basis and the treatment of mortgage interest, property taxes, like-kind exchanges, involuntary conversions, sales and dispositions, qualifying property, and capital gains and losses. The various forms used for property transactions will be reviewed in detail.

0501	Jeffrey Milton	Seats (Total: 0)
	Meets March 23, 2020 - May 8, 2020	
	TuTh 4:00pm - 5:50pm	VMH 1511

BUDT Decision and Information Technologies Spring 2020

BUDT758B **Special Topics in Decision, Operations and Information Technologies; Big Data and Artificial Intelligence for Business**

(Perm req)

Credits: 3

Grading Method: Regular, Sat-Fail

Selected advanced topics in the various fields of graduate study in decision, operations and information technologies.

For MS in Business Analytics students only.

0501	Cupid Chan **Meets January 21, 2020 - May 8, 2020** MW 12:30pm - 1:45pm *For MS in Business Analytics students only.*	Seats (Total: 0) VMH 1333
0502	Cupid Chan **Meets January 21, 2020 - May 8, 2020** MW 11:00am - 12:15pm *For MS in Business Analytics students only.*	Seats (Total: 0) VMH 1333

BUDT758C **Special Topics in Decision, Operations and Information Technologies; Project Management in Dynamic Environments**

(Perm req) Credits: 2 Grading Method: Regular, Sat-Fail

Selected advanced topics in the various fields of graduate study in decision, operations and information technologies.

0501	Paul Shapiro **Meets January 21, 2020 - March 9, 2020** MW 2:00pm - 3:50pm	Seats (Total: 0) VMH 1528
0502	Paul Shapiro **Meets January 21, 2020 - March 9, 2020** MW 4:00pm - 5:50pm	Seats (Total: 0) VMH 1528

BUDT758F **Special Topics in Decision, Operations and Information Technologies; Google Online Challenge and Analytics**

Credits: 3 Grading Method: Regular, Sat-Fail

Selected advanced topics in the various fields of graduate study in decision, operations and information technologies.

For MS in Information Systems students only.

0501	John Bono	Seats (Total: 36)
	Meets January 21, 2020 - May 8, 2020	
	MW 8:00am - 9:15am	VMH 1333
	For MS in Information Systems students only.	
0502	John Bono	Seats (Total: 36)
	Meets January 21, 2020 - May 8, 2020	
	MW 9:30am - 10:45am	VMH 1333
	For MS in Information Systems students only.	

BUDT758K **Special Topics in Decision, Operations and Information Technologies; Computer Simulation for Business Applications**

Credits: 3 Grading Method: Regular, Sat-Fail

Selected advanced topics in the various fields of graduate study in decision, operations and information technologies.

For MS in Information Systems students only.

0501	Sujin Kim	Seats (Total: 50)
	Meets January 21, 2020 - May 8, 2020	
	TuTh 11:00am - 12:15pm	VMH 1333
	For MS in Information Systems students only.	

BUDT758N **Special Topics in Decision, Operations and Information Technologies; Business Process Analysis for Information Systems**

(Perm req)

Credits: 3 Grading Method: Regular, Sat-Fail

Selected advanced topics in the various fields of graduate study in decision, operations and information technologies.

For MS in Information Systems students only.

0501	Sindhu Rajan	Seats (Total: 0)
	Meets January 21, 2020 - May 8, 2020	
	MW 5:00pm - 6:15pm	VMH 1330
	For MS in Information Systems students only. 3 credit version of BUDT703.	

0502	Sindhu Rajan	Seats (Total: 0)
	Meets January 21, 2020 - May 8, 2020	
	MW 6:30pm - 7:45pm	VMH 1330
	For MS in Information Systems students only. 3 credit version of BUDT703.	

BUDT758P **Special Topics in Decision, Operations and Information Technologies; Decision Analytics**

Credits: 3 Grading Method: Regular, Sat-Fail

Selected advanced topics in the various fields of graduate study in decision, operations and information technologies.

Contact department for information to register for this course.

BUDT758Q **Special Topics in Decision, Operations and Information Technologies; Data Models and Decisions**

Credits: 3 Grading Method: Regular, Sat-Fail

Selected advanced topics in the various fields of graduate study in decision, operations and information technologies.

Contact department for information to register for this course.

BUDT758T **Special Topics in Decision, Operations and Information Technologies; Data Mining and Predictive Analytics**

Credits: 3 Grading Method: Regular, Sat-Fail

Selected advanced topics in the various fields of graduate study in decision, operations and information technologies.

For MS in Business Analytics studnts only.

0502	Gorkem Ozer	Seats (Total: 56)
	Meets January 21, 2020 - May 8, 2020	
	TuTh 9:30am - 10:45am	VMH 1333
	For MS in Information Systems students only.	
0503	Jessica Clark	Seats (Total: 0)
	Meets January 21, 2020 - May 8, 2020	
	MW 3:30pm - 4:45pm	VMH 1333
	For MS in Business Analytics students only.	

0504	Jessica Clark **Meets January 21, 2020 - May 8, 2020** MW 5:00pm - 6:15pm *For MS in Business Analytics students only.*	Seats (Total: 0) VMH 1333
0505	Gorkem Ozer **Meets January 21, 2020 - May 8, 2020** TuTh 2:00pm - 3:15pm *For MS in Information Systems students only.*	Seats (Total: 56) VMH 1333

BUDT758V **Special Topics in Decision, Operations and Information Technologies; Operations Analytics**

(Perm req)

Credits: 2 Grading Method: Regular, Sat-Fail

Selected advanced topics in the various fields of graduate study in decision, operations and information technologies.

For MS in Business Analytics students only.

0501	Zhi-Long Chen **Meets March 23, 2020 - May 8, 2020** TuTh 12:00pm - 1:50pm *For MS in Business Analytics students only.*	Seats (Total: 0) VMH 1511

BUDT758X **Special Topics in Decision, Operations and Information Technologies; Data Processing and Analysis in Python**

(Perm req)

Credits: 3 Grading Method: Regular, Sat-Fail

Selected advanced topics in the various fields of graduate study in decision, operations and information technologies.

For MS in Business Analytics students only.

0501	John Bono **Meets January 21, 2020 - May 8, 2020** TuTh 3:30pm - 4:45pm *For MS in Business Analytics students only.*	Seats (Total: 0) VMH 1333

0502	John Bono	Seats (Total: 0)
	Meets January 21, 2020 - May 8, 2020	
	TuTh 5:00pm - 6:15pm	VMH 1333
	For MS in Business Analytics students only.	

BUDT758Y **Special Topics in Decision, Operations and Information Technologies; Database Management Systems**

Credits: 3 Grading Method: Regular, Sat-Fail

Selected advanced topics in the various fields of graduate study in decision, operations and information technologies.

Contact department for information to register for this course.

BUDT758Z **Special Topics in Decision, Operations and Information Technologies; Computer Simulation for Business Applications**

(Perm req)

Credits: 2 Grading Method: Regular, Sat-Fail

Selected advanced topics in the various fields of graduate study in decision, operations and information technologies.

0501	Melanie De Grano	Seats (Total: 0)
	Meets March 23, 2020 - May 8, 2020	
	TuTh 2:00pm - 3:50pm	VMH 1511

BUDT759 **Independent Study in Decision and Information Technologies**

(Perm req)

Credits: 1-6 Grading Method: Regular, Sat-Fail

Independent study for masters students in decision and information technologies.

Contact department for information to register for this course.

BUFN Finance Spring 2020

Courses with the BUFN prefix are offered only for students in the Master of Finance and Master of Quantitative Finance programs.

BUFN630 **Valuation in Corporate Finance**

(Perm req)

Credits: 2 Grading Method: Regular, Sat-Fail

Prerequisite: BUFN610. Restriction: Must be in one of the following programs (Business and Management (Master's); Business and Management (Master's)) ; or permission of BMGT-Robert H. Smith School of Business. Credit only granted for: BUFN630, BUFN714, BUFN750, BUFN753, or BMGT730. Formerly: BUFN750.

An advanced topics course in Corporate Finance dealing with valuation. Main topics will be, building pro forma statements, cost of capital, using ratios and comparables to value projects and firms, dicounted cash flow valuations, WACC and APV methods of valuation and Real Option Valuations.

0501	Maria Bustamante **Meets January 21, 2020 - March 9, 2020** TuTh 2:00pm - 3:50pm	Seats (Total: 0) VMH 1330
0502	Liu Yang **Meets January 21, 2020 - March 9, 2020** TuTh 10:00am - 11:50am	Seats (Total: 0) VMH 1330

BUFN660 **Derivative Securities**

(Perm req)

Credits: 2 Grading Method: Regular, Sat-Fail

Prerequisite: BUFN610. Restriction: Must be in one of the following programs (Business and Management (Master's); Business and Management (Master's)) ; or permission of BMGT-Robert H. Smith School of Business. Credit only granted for: BUFN660, BUFN726, BUFN761 or BUFN773. Formerly: BUFN761.

Standard types of derivatives contracts are presented, and illustrated as to how they are used in practice. The theory of pricing these contracts is then presented in detail. The use of static and dynamic replication strategies, and the concept of no-arbitrage strategies is illustrated in numerous ways. Standard valuation techniques are covered, and standard formulas are presented. The theory is then applied to develop specific pricing and hedging strategies for various types of derivatives on different underlying assets. The management of the exposure of various risks is covered in detail as well.

0501	Steven Heston **Meets January 21, 2020 - March 9, 2020** MW 4:00pm - 5:50pm	Seats (Total: 0) VMH 1505
0502	Steven Heston **Meets January 21, 2020 - March 9, 2020** MW 10:00am - 11:50am	Seats (Total: 0) VMH 1330

BUFN670 **Financial Mathematics**

(Perm req)

Credits: 2

Grading Method: Regular, Sat-Fail

Restriction: Must be in Business and Management (Master's) program; or permission of BMGT-Robert H.

Introduction to the mathematical models used in finance and economics with emphasis on pricing derivative instruments. Topics include elements from basic probability theory, distributions of stock returns, elementary stochastic calculus, Ito's Lemma, arbitrage pricing theory, and continuous time portfolio theory. Particular focus is on the financial applications of these mathematical concepts.

0501	Mark Loewenstein	Seats (Total: 0)
	Meets March 23, 2020 - May 8, 2020	
	TuTh 10:00am - 11:50am	VMH 1330

BUFN710 **Financial Strategy for Corporations**

(Perm req)

Credits: 2

Grading Method: Regular, Sat-Fail

Prerequisite: BUFN610; or permission of BMGT-Robert H. Smith School of Business. Restriction: Permission of BMGT-Robert H. Smith School of Business; or must be in Business and Management (Master's) program. Credit only granted for: BUFN751 or BUFN710. Formerly: BUFN751.

An advanced course in corporate finance, focusing on the issues that firms face when they plan to raise external capital from financial markets. The focus is on the financing problems faced by mid-market to large firms and on capital raised from public markets. The forms of external finance vary from simple debt or equity to more complex securities that bundle with an element of risk management.

0501	Pablo Slutzky	Seats (Total: 0)
	Meets March 23, 2020 - May 8, 2020	
	MW 8:00am - 9:50am	VMH 1505

BUFN717 **Entrepreneurial Finance and Private Equity**

(Perm req)

Credits: 2

Grading Method: Regular, Sat-Fail

Prerequisite: BUFN610. Restriction: Permission of BMGT-Robert H. Smith School of Business; or must be in Business and Management (Master's) program. Credit only granted for: BUFN755 or BUFN717. Formerly: BUFN755.

An advanced topics course in Corporate Finance. The major emphasis is how financiers help growing firms - and in particular young start-ups - using different types of securities at different points in the industry's and firm's life. Financing arrangements and securities studied will include private equity funds and private financings placements, Venture Capital (VC) and preferred equity, Investment Banks through Initial Public Offerings (IPOs), Private equity finds, debt and leveraged buyouts. Students will learn additional techniques that will help them understand how financiers value firms and how to understand, plan and value different financing strategies.

0501	Pablo Slutzky	Seats (Total: 0)
	Meets March 23, 2020 - May 8, 2020	
	MW 2:00pm - 3:50pm	VMH 1511

BUFN724 **Bank Management**

(Perm req)

Credits: 2 Grading Method: Regular, Sat-Fail

Prerequisite: BUFN610. Restriction: Must be in Business and Management (Master's) program; or permission of BMGT-Robert H. Smith School of Business. Credit only granted for: BUFN724 or BUFN772. Formerly: BUFN772.

Analyze and discuss readings in bank management,with primary focus on the measurement and management of risk, including credit, market, and interest rate risk. Look at the management of liquid reserves. Examine the special nature of financial institutions, incorporating their functions, policies, services, and regulation. Study the evolving nature of the financial services industry, by reading the financial press and by having outside practitioner speakers. Focus is on U.S. banks.

0501	Clifford Rossi	Seats (Total: 0)
	Meets January 21, 2020 - March 9, 2020	
	MW 10:00am - 11:50am	VMH 1511

BUFN730 **Applied Equity Analysis**

(Perm req)

Credits: 2 Grading Method: Regular, Sat-Fail

Prerequisite: BUFN610. Restriction: Permission of BMGT-Robert H. Credit only granted for: BUFN760 or BUFN730. Formerly: BUFN760.

Provides in-depth analysis of public equities, with a focus on financial statement analysis, financial forecasting and ultimately valuation. Students will apply the primary valuation techniques used in industry to estimate market values for equities. Additionally, students learn how to stress test their financial models and interpret outcomes.

0502	Kenneth Fuller	Seats (Total: 0)
	Meets January 21, 2020 - March 9, 2020	
	TuTh 12:00pm - 1:50pm	VMH 1505

BUFN732 **Fixed Income Analysis**

(Perm req)

Credits: 2 Grading Method: Regular, Sat-Fail

Prerequisite: BUFN610. Restriction: Permission of BMGT-Robert H. Smith School of Business; or must be in Business and Management (Master's) program. Credit only granted for: BUFN732 or BUFN762. Formerly: BUFN762.

Describes important financial instruments which have market values that are sensitive to interest rate movements. Develops tools to analyze interest rate sensitivity and value fixed income securities. Defines and explains the vocabulary of the bond management business.

0501	Haluk Unal	Seats (Total: 0)
	Meets March 23, 2020 - May 8, 2020	
	MW 10:00am - 11:50am	VMH 1330
0502	Haluk Unal	Seats (Total: 0)
	Meets March 23, 2020 - May 8, 2020	
	MW 12:00pm - 1:50pm	VMH 1330

BUFN736 **Quantitative Investment Strategies**

(Perm req)

Credits: 2 Grading Method: Regular, Sat-Fail

Prerequisite: BUFN610. Restriction: Must be in a major in BMGT-Robert H. Smith School of Business; or must be in Business and Management (Master's) program. Credit only granted for: BUFN764 or BUFN736. Formerly: BUFN764.

Provides an introduction to quantitative techniques of selecting equities, as used commonly among long-short equity hedge funds and other quantitative equity asset management companies. Statistical factor models are developed to locate stocks with higher expected returns, based on the observable characteristics of the stocks. Implementation issues, including statistical estimation, backtesting and portfolio construction, are covered, as is performance evaluation.

0501	Russell Wermers	Seats (Total: 0)
	Meets January 21, 2020 - March 9, 2020	
	TuTh 4:00pm - 5:50pm	VMH 1330

0502	Russell Wermers	Seats (Total: 0)
	Meets January 21, 2020 - March 9, 2020	
	TuTh 10:00am - 11:50am	VMH 1336

BUFN745 **Financial Programming**

(Perm req)

Credits: 2 Grading Method: Regular, Sat-Fail

Prerequisite: BUFN650. Restriction: Must be in Business and Management (Master's) program; or permission of BMGT-Robert H. Credit only granted for: BUFN758E or BUFN745. Formerly: BUFN758E.

This course introduces basic and innovative statistical modelling methods for financial markets, and equips students with analytical and programming tools for modelling and analyzing financial data. Examples of applications include portfolio management and risk management.

0501	Xi He	Seats (Total: 0)
	Meets January 21, 2020 - March 9, 2020	
	TuTh 12:00pm - 1:50pm	VMH 1336
0502	Xi He	Seats (Total: 0)
	Meets January 21, 2020 - March 9, 2020	
	TuTh 2:00pm - 3:50pm	VMH 1336

BUFN758D **Special Topics in Finance; Big Data in Finance**

(Perm req)

Credits: 2 Grading Method: Regular, Sat-Fail

Selected advanced topics in the various fields of graduate study in finance.

0502	John Roberts	Seats (Total: 0)
	Meets March 23, 2020 - May 8, 2020	
	M 6:25pm - 10:00pm	VMH 1333

BUFN758M **Special Topics in Finance; Hedge Fund Management**

(Perm req)

Credits: 2 Grading Method: Regular, Sat-Fail

Selected advanced topics in the various fields of graduate study in finance.

0501	Kenneth Brodkowitz **Meets January 21, 2020 - March 9, 2020** TuTh 2:00pm - 3:50pm	Seats (Total: 0) VMH 1505

BUFN758R **Special Topics in Finance; Financial Institute Risk Management**

(Perm req)

Credits: 2 Grading Method: Regular, Sat-Fail

Selected advanced topics in the various fields of graduate study in finance.

0501	Clifford Rossi **Meets January 21, 2020 - March 9, 2020** MW 2:00pm - 3:50pm	Seats (Total: 0) VMH 1330

BUFN758X **Special Topics in Finance; Market Microstructure**

(Perm req)

Credits: 2 Grading Method: Regular, Sat-Fail

Selected advanced topics in the various fields of graduate study in finance.

0501	Albert Kyle **Meets March 23, 2020 - May 8, 2020** TuTh 2:00pm - 3:50pm	Seats (Total: 0) VMH 1505
0502	Albert Kyle **Meets March 23, 2020 - May 8, 2020** TuTh 4:00pm - 5:50pm	Seats (Total: 0) VMH 1505

BUFN758Z **Special Topics in Finance; Global Equity Fund**

(Perm req)

Credits: 2 Grading Method: Regular, Sat-Fail

Selected advanced topics in the various fields of graduate study in finance.

Contact department for information to register for this course.

BUFN759 **Independent Study in Finance**

(Perm req)

Credits: 1-6 Grading Method: Regular, Sat-Fail

Independent study for Masters students in finance.

By Department Permission Only.

Contact department for information to register for this course.

BUFN768A **Special Topics in Finance; Experiential Learning Project**

(Perm req)

Credits: 1-4 Grading Method: Regular, Sat-Fail

Selected experiential learning opportunities in advanced topics in the various fields of graduate study in finance.

Contact department for information to register for this course.

BUFN768B **Special Topics in Finance; Experiential Learning Project**

(Perm req)

Credits: 1-4 Grading Method: Regular, Sat-Fail

Selected experiential learning opportunities in advanced topics in the various fields of graduate study in finance.

Contact department for information to register for this course.

BUFN768O **Special Topics in Finance; Experiential Learning Project**

(Perm req)

Credits: 1-4 Grading Method: Regular, Sat-Fail

Selected experiential learning opportunities in advanced topics in the various fields of graduate study in finance.

Contact department for information to register for this course.

BUFN768P **Special Topics in Finance; Experiential Learning Project**

(Perm req)

Credits: 1-4 Grading Method: Regular, Sat-Fail

Selected experiential learning opportunities in advanced topics in the various fields of graduate study in finance.

Contact department for information to register for this course.

BUFN768X **Special Topics in Finance; Experiential Learning Project**

(Perm req)

Credits: 1-4 Grading Method: Regular, Sat-Fail

Selected experiential learning opportunities in advanced topics in the various fields of graduate study in finance.

Contact department for information to register for this course.

BUFN768Y **Special Topics in Finance; Experiential Learning Project**

(Perm req)

Credits: 1-4

Grading Method: Regular, Sat-Fail

Selected experiential learning opportunities in advanced topics in the various fields of graduate study in finance.

Contact department for information to register for this course.

BULM Logistics, Business, and Public Policy Spring 2020

Courses with the BULM prefix are offered only for students in the MS in Supply Chain Management program.

BULM724 **Negotiations in Supply Chain Management**

(Perm req)

Credits: 2

Grading Method: Regular, Sat-Fail

Restriction: Must be in one of the following programs (Business and Management (Master's); Business and Management (Master's)).

This high experiential course will improve students' negotiation skills and capacity to acquire and effectively use power. By using a variety of assessment tools, feedback sources, skill-building exercises, and exercise debriefings, the class will increase students' negotiating self-confidence and improve their capacity to achieve win-win solutions to individual, team, and organizational problems. The course is designed to enhance students negotiating self confidence and improve students analytical skills, interpersonal skills, creativity (e.g., identifying creative solutions to conflict), and persuasive abilities.

0501	Gosia Langa Basit	Seats (Total: 0)
	Meets March 23, 2020 - May 8, 2020	
	MW 12:00pm - 1:50pm	VMH 1511

BULM731 **Technology Applications in Supply Chain Management**

Credits: 2

Grading Method: Regular, Sat-Fail

Restriction: Must be in Business and Management (Master's) program; or permission of BMGT-Robert H. Smith School of Business.

In this course, we introduce the knowledge and skills necessary to quantify the impact of supply chain management decisions on the bottom line. Students will gain an understanding of accounting, finance, production cost, scheduling, and the link between supply chain and overall financial performance.

0501	Hongyi Zhang **Meets January 21, 2020 - March 9, 2020** TuTh 10:00am - 11:50am	Seats (Total: 18) VMH 3522
0502	Hongyi Zhang **Meets January 21, 2020 - March 9, 2020** TuTh 12:00pm - 1:50pm	Seats (Total: 21) VMH 3522

BULM735 **Project Management in Dynamic Environments**

(Perm req)

Credits: 2 Grading Method: Regular, Sat-Fail

Restriction: Must be in Business and Management (Master's) program; or permission of BMGT-Robert H. Smith School of Business.

Addresses project management skills that are required by successful managers in increasingly competitive and faster-moving environments. Examines fundamental concepts of successful project management, and the technical and managerial issues, methods, and techniques.

0501	Paul Shapiro **Meets January 21, 2020 - March 9, 2020** MW 10:00am - 11:50am	Seats (Total: 0) VMH 1505

BULM754 **Global Transportation Management**

(Perm req)

Credits: 2 Grading Method: Regular, Sat-Fail

Restriction: Must be in Business and Management (Master's) program; or permission of BMGT-Robert H. Smith School of Business. Credit only granted for: BULM758T or BULM754. Formerly: BULM758T.

Introduces transportation as a field of managerial and governmental responsibility and presents the features that make the transportation arena unique and, thus,worthy of advanced study. Each of the five modes of transportation, along with other forms of carriage, will be considered. In addition, the importance of freight transportation within supply chain management will be examined. Issues related to passenger transportation will also be addressed. Throughout the course, particular attention will be paid to the significant impact that transportation has on economic development and growth.

0501	Philip Evers **Meets January 21, 2020 - March 9, 2020** TuTh 8:00am - 9:50am	Seats (Total: 0) VMH 1505

BULM758C **Special Topics in Logistics, Business and Public Policy; Assessing & Managing Supply Chain Risks**

(Perm req)

Credits: 2

Grading Method: Regular, Sat-Fail

Selected advanced topics in the various fields of graduate study in logistics, business and public policy.

0501	Sandor Boyson	Seats (Total: 0)
	Meets March 23, 2020 - May 8, 2020	
	MW 4:00pm - 5:50pm	VMH 1528

BULM759 **Independent Study in Logistics Management**

(Perm req)

Credits: 1-6

Grading Method: Regular, Sat-Fail

Independent study for Masters students in Logistics Management.

Contact department for information to register for this course.

BUMK Marketing Spring 2020

BUMK744 **Marketing Research and Analytics**

(Perm req)

Credits: 3

Grading Method: Regular, Sat-Fail

Restriction: Must be in Business and Management (Master's) program; or permission of BMGT-Robert H. Smith School of Business. Credit only granted for: BUMK758L or BUMK744. Formerly: BUMK758L.

Provides a review of primary data collection methods for marketing data. Students will learn how to design and implement effective confirmatory research. Both direct methods such as surveys and indirect methods such as experiments will be covered. In this hands-on course, students will design and conduct research with target customers, analyze the data, and then present their results to decision makers.

0501	Bruno Jacobs	Seats (Total: 0)
	Meets January 21, 2020 - May 8, 2020	
	MW 9:30am - 10:45am	VMH 1335
	For MS in Marketing Analytics students only.	
0502	Bruno Jacobs	Seats (Total: 0)
	Meets January 21, 2020 - May 8, 2020	
	MW 11:00am - 12:15pm	VMH 1335

BUMK746 **Data Science for Customer Analytics**

(Perm req)

Credits: 3

Grading Method: Regular, Sat-Fail

Restriction: Must be in Business and Management (Master's) program; or permission of BMGT-Robert H. Smith School of Business. Credit only granted for: BUMK758W or BUMK746. Formerly: BUMK758W.

An introduction to data science and thebasic concepts of database management. The course also provides an overview of the various sources of in house data that are available to many organizations. Students will learn how to work with click stream, scanner panel and social media data. Geo-demographic datasets will be discussed and explored, and techniques for data-fusion will receive ample attention.

0501	Liye Ma **Meets January 21, 2020 - May 8, 2020** Th 3:30pm - 6:15pm *For MS in Marketing Analytics students only.*	Seats (Total: 0) VMH 1411
0502	Liye Ma **Meets January 21, 2020 - May 8, 2020** Tu 3:30pm - 6:15pm	Seats (Total: 0) VMH 1411

BUMK758R **Special Topics in Marketing; CRM Analytics**

(Perm req)

Credits: 2

Grading Method: Regular, Sat-Fail

Selected advanced topics in the various fields of graduate study in marketing.

Masters students only.

0501	Pallassana Kannan **Meets March 23, 2020 - May 8, 2020** MW 2:00pm - 3:50pm *For MS in Marketing Analytics students only.*	Seats (Total: 0) VMH 1330

BUMK759 **Independent Study in Marketing**

(Perm req)

Credits: 1-6

Grading Method: Regular, Sat-Fail

Independent study for Masters students in Marketing.

Contact department for information to register for this course.

BUMK764 **Business Communications II**

(Perm req)

Credits: 1

Grading Method: Regular, Sat-Fail

Restriction: Must be in Business and Management (Master's) program; or permission of BMGT-Robert H. Smith School of Business. Credit only granted for: BUMK758G or BUMK764. Formerly: BUMK758G.

Teaches students how to communicate quantitative information effectively. Focuses on developing written, spoken and presentation skills.

0501	Christine Schaaf **Meets January 21, 2020 - March 9, 2020** M 4:00pm - 5:50pm *For MS in Marketing Analytics students only.*	Seats (Total: 0) VMH 1335
0502	Christine Schaaf **Meets January 21, 2020 - March 9, 2020** W 4:00pm - 5:50pm *For MS in Marketing Analytics students only.*	Seats (Total: 0) VMH 1335

BUMK766 **Digital Analytics**

(Perm req)

Credits: 2

Grading Method: Regular, Sat-Fail

Restriction: Must be in Business and Management (Master's) program; or permission of BMGT-Robert H. Smith School of Business. Credit only granted for: BUMK758N or BUMK766. Formerly: BUMK758N.

Examines the process of developing, implementing and analyzing strategies for successfully marketing a variety of existing and potential products and services on the Internet. Special attention is devoted to the tools and techniques unique to the electronic media.

0502	Michael Trusov **Meets January 21, 2020 - March 9, 2020** TuTh 8:00am - 9:50am	Seats (Total: 30) VMH 1330

BUMK776 **Action Learning Project**

(Perm req)

Credits: 2

Grading Method: Regular, Sat-Fail

Restriction: Must be in Business and Management (Master's) program; or permission of BMGT-Robert H. Smith School of Business. Credit only granted for: BUMK758Q or BUMK776. Formerly: BUMK758Q.

Students analyze marketing data, report their findings and provide appropriate recommendations.

0501	Liye Ma **Meets January 21, 2020 - March 9, 2020** TuTh 12:00pm - 1:50pm *For MS in Marketing Analytics students only.*	Seats (Total: 0) VMH 1511
0502	Liye Ma **Meets January 21, 2020 - March 9, 2020** TuTh 10:00am - 11:50am	Seats (Total: 0) VMH 1511

BUSI Part-Time MBA Program Spring 2020

BUSI611 **Managerial Accounting**

(Perm req)

Credits: 2 Grading Method: Regular, Sat-Fail

Prerequisite: BUSI610. Restriction: Must be in one of the following programs (Business and Management (Master's); Business and Management (Master's)). Credit only granted for: BUSI611, BUAC616, or BMGT616.

Use of accounting data in corporate planning and control. Cost-volume- profit analysis, budgeting, pricing decisions and cost data, transfer pricing, activity-based management, performance measures, and standard costing.

BA01	William Ford **Meets January 21, 2020 - March 9, 2020** Tu 6:25pm - 10:00pm	Seats (Total: 0) BA 104
DC01	Emanuel Zur **Meets January 21, 2020 - March 9, 2020** W 6:25pm - 10:00pm	Seats (Total: 0) DC C2
DC02	William Ford **Meets January 21, 2020 - March 9, 2020** Th 6:25pm - 10:00pm	Seats (Total: 0) DC C2
GS01	Emanuel Zur **Meets January 21, 2020 - March 9, 2020** M 6:25pm - 10:00pm	Seats (Total: 0) BLD2 2032

BUSI621 **Strategic and Transformational IT**

(Perm req)

Credits: 2

Grading Method: Regular, Sat-Fail

Restriction: Must be in one of the following programs (Business and Management (Master's); Business and Management (Master's)) ; or permission of BMGT-Robert H. Smith School of Business. Credit only granted for: BUSI620 or BUSI621.

Introduces students to the key issues in managing information technology (IT) and provides an overview of how major IT applications in today's firms support strategic, opertaional, and tactical decisions. Topics include: synchroizing IT and business strategy; the transformational impacts of IT; evaluating and coping with new technologies; governing, managing, and organizing the IT function including outsourcing/offshoring considerations; assessing the business value of IT and justifying IT projects; and managing IT applications in functional areas to support strategy and business process.

BA01	Il-Horn Hann **Meets January 21, 2020 - March 9, 2020** Th 6:25pm - 10:00pm	Seats (Total: 0) BA 104
DC01	Anand Gopal **Meets January 21, 2020 - March 9, 2020** M 6:25pm - 10:00pm	Seats (Total: 0) DC C2
DC02	Il-Horn Hann **Meets January 21, 2020 - March 9, 2020** Tu 6:25pm - 10:00pm	Seats (Total: 0) DC C2
GS01	Il-Horn Hann **Meets January 21, 2020 - March 9, 2020** W 6:25pm - 10:00pm	Seats (Total: 0) BLD2 2032

BUSI622 **Managing Digital Business Markets**

Credits: 2

Grading Method: Regular, Sat-Fail

Restriction: Must be in one of the following programs (Business and Management (Master's); Business and Management (Master's)) ; or permission of BMGT-Robert H. Smith School of Business.

The objective is to understand the strategic and tactical issues involved in managing digital businesses and markets. Also, some of the characteristics of digital businesses and markets that make them unique and understand how companies can best manage them will be examined.

BA01	Il-Horn Hann **Meets January 21, 2020 - March 9, 2020** M 6:25pm - 10:00pm	Seats (Total: 45) BA 103

BUSI640 **Corporate Finance**

(Perm req)

Credits: 2 Grading Method: Regular, Sat-Fail

Restriction: Must be in one of the following programs (Business and Management (Master's); Business and Management (Master's)).

Focuses on the valuation of the real assets of firms as well as the valuation of stocks and bonds, the primary financial assets in an economy. While details vary, the conceptual foundations of valuation boil down to three themes: time value of money, no-arbitrage, and systematic risk.

BA01	Oya Altinkilic **Meets January 21, 2020 - March 9, 2020** W 6:25pm - 10:00pm	Seats (Total: 0) BA 104
DC01	Oya Altinkilic **Meets January 21, 2020 - March 9, 2020** M 6:25pm - 10:00pm	Seats (Total: 0) DC C3
DC02	Oya Altinkilic **Meets January 21, 2020 - March 9, 2020** Tu 6:25pm - 10:00pm	Seats (Total: 0) DC C3
GS01	Liu Yang **Meets January 21, 2020 - March 9, 2020** Th 6:25pm - 10:00pm	Seats (Total: 0) BLD2 2032

BUSI650 **Marketing Management**

(Perm req)

Credits: 2 Grading Method: Regular, Sat-Fail

Restriction: Must be in one of the following programs (Business and Management (Master's); Business and Management (Master's)). Credit only granted for: BUSI650 or BMGT612.

Analysis of marketing problems and evaluation of specific marketing efforts regarding the organization's products and services, pricing activities, channel selection, and promotion strategies in both domestic and international markets.

Non-majors should review their registration eligibility in the statement preceding the BUSI courses.

BA01	Dan Goldsmith **Meets March 23, 2020 - May 8, 2020** M 6:25pm - 10:00pm	Seats (Total: 0) BA 104
DC01	Judy Frels **Meets March 23, 2020 - May 8, 2020** W 6:25pm - 10:00pm	Seats (Total: 0) DC C3
DC02	Mary Beth Furst **Meets March 23, 2020 - May 8, 2020** Th 6:25pm - 10:00pm	Seats (Total: 0) DC C3
GS01	Dan Goldsmith **Meets March 23, 2020 - May 8, 2020** Tu 6:25pm - 10:00pm	Seats (Total: 0) BLD2 2032

BUSI681 **Managerial Economics and Public Policy**

(Perm req)

Credits: 2 Grading Method: Regular, Sat-Fail

Restriction: Must be in one of the following programs (Business and Management (Master's); Business and Management (Master's)). Credit only granted for: BUSI681 or BMGT604.

Basic microeconomic principles used by firms, including supply and demand, elasticities, costs, productivity, pricing, market structure and competitive implications of alternative market structures. Market failures and government intervention. Public policy processes affecting business operations.

BA01	Ryan Cooper **Meets January 21, 2020 - March 9, 2020** M 6:25pm - 10:00pm	Seats (Total: 0) BA 104
DC01	Ryan Cooper **Meets January 21, 2020 - March 9, 2020** W 6:25pm - 10:00pm	Seats (Total: 0) DC C3
DC02	Ryan Cooper **Meets January 21, 2020 - March 9, 2020** Th 6:25pm - 10:00pm	Seats (Total: 0) DC C3

GS01	Ryan Cooper	Seats (Total: 0)
	Meets January 21, 2020 - March 9, 2020	
	Tu 6:25pm - 10:00pm	BLD2 2032

BUSI758C **Special Topics in Business; DECISION ANALYTICS**

Credits: 2 Grading Method: Regular, Sat-Fail

Selected advanced topics in the various fields of graduate study in business.

GS01	Suresh Acharya	Seats (Total: 45)
	Meets January 21, 2020 - March 9, 2020	
	Th 6:25pm - 10:00pm	BLD2 3032

BUSI758F **Special Topics in Business; Investment Fund Management**

(Perm req)

Credits: 3 Grading Method: Regular, Sat-Fail

Selected advanced topics in the various fields of graduate study in business.

DC01	Kenneth Fuller	Seats (Total: 18)
	Meets January 21, 2020 - May 8, 2020	
	Tu 6:25pm - 10:00pm	DC C4

BUSI758G **Special Topics in Business; Global Strategy**

Credits: 2 Grading Method: Regular, Sat-Fail

Selected advanced topics in the various fields of graduate study in business.

BA01	Anil Gupta	Seats (Total: 45)
	Meets January 21, 2020 - March 9, 2020	
	Th 6:25pm - 10:00pm	BA 103

BUSI758I **Special Topics in Business; Global Supply Chain Management**

Credits: 2 Grading Method: Regular, Sat-Fail

Selected advanced topics in the various fields of graduate study in business.

DC01	Thomas Corsi **Meets March 23, 2020 - May 8, 2020** Tu 6:25pm - 10:00pm	Seats (Total: 45) DC C2

BUSI758N **Special Topics in Business; Leading with a Strategic Mindset**

(Perm req)

Credits: 2 Grading Method: Regular, Sat-Fail

Selected advanced topics in the various fields of graduate study in business.

BA01	Neta Moye **Meets March 23, 2020 - May 8, 2020** Tu 6:25pm - 10:00pm	Seats (Total: 0) BA 103
DC01	Sheetal Singh **Meets March 23, 2020 - May 8, 2020** W 6:25pm - 10:00pm	Seats (Total: 0) DC C2
DC02	Neta Moye **Meets March 23, 2020 - May 8, 2020** Th 6:25pm - 10:00pm	Seats (Total: 0) DC C2
GS01	Anil Gupta **Meets March 23, 2020 - May 8, 2020** M 6:25pm - 10:00pm	Seats (Total: 0) BLD2 2032

BUSI758Q **Special Topics in Business; Business Consulting**

Credits: 4 Grading Method: Regular, Sat-Fail

Selected advanced topics in the various fields of graduate study in business.

DC01	Nicole Coomber **Meets January 21, 2020 - May 8, 2020** M 6:25pm - 10:00pm	Seats (Total: 45) DC C1

BUSI758T **Special Topics in Business; Applied Equity Analysis**

Credits: 2 Grading Method: Regular, Sat-Fail

Selected advanced topics in the various fields of graduate study in business.

DC01	Ryan Guttridge **Meets January 21, 2020 - March 9, 2020** W 6:25pm - 10:00pm	Seats (Total: 45) DC C1

BUSI758W **Special Topics in Business; Corporate Finance II**

(Perm req)

Credits: 2 Grading Method: Regular, Sat-Fail

Selected advanced topics in the various fields of graduate study in business.

BA01	Geoffrey Tate **Meets March 23, 2020 - May 8, 2020** W 6:25pm - 10:00pm	Seats (Total: 0) BA 104
DC01	Geoffrey Tate **Meets March 23, 2020 - May 8, 2020** M 6:25pm - 10:00pm	Seats (Total: 0) DC C3
DC02	Geoffrey Tate **Meets March 23, 2020 - May 8, 2020** Tu 6:25pm - 10:00pm	Seats (Total: 0) DC C3
GS01	Geoffrey Tate **Meets March 23, 2020 - May 8, 2020** Th 6:25pm - 10:00pm	Seats (Total: 0) BLD2 2032

BUSI758X **Special Topics in Business; Competitive & Collaborative Negotiation**

Credits: 2 Grading Method: Regular, Sat-Fail

Selected advanced topics in the various fields of graduate study in business.

BA01	Gosia Langa Basit **Meets March 23, 2020 - May 8, 2020** Th 6:25pm - 10:00pm	Seats (Total: 45) BA 103

DC01	Gosia Langa Basit **Meets March 23, 2020 - May 8, 2020** W 6:25pm - 10:00pm	Seats (Total: 45) DC C1
GS01	Rellie Rozin **Meets March 23, 2020 - May 8, 2020** Tu 6:25pm - 10:00pm	Seats (Total: 45) BLD2 3032

BUSI758Z **Special Topics in Business; Pricing and Revenue Management**

Credits: 2 Grading Method: Regular, Sat-Fail

Selected advanced topics in the various fields of graduate study in business.

DC01	Duygu Dagli **Meets January 21, 2020 - March 9, 2020** Tu 6:25pm - 10:00pm	Seats (Total: 45) DC C1

BUSI759 **Independent Study in Business**

(Perm req)

Credits: 1-6 Grading Method: Regular, Sat-Fail

Independent study for Masters students in Business.

Contact department for information to register for this course.

BUSI764 **Business Law for Managers**

Credits: 2 Grading Method: Regular, Sat-Fail

Restriction: Must be in one of the following programs (Business and Management (Master's); Business and Management (Master's)) ; or permission of BMGT-Robert H. Smith School of Business. Credit only granted for: BUSI764 or BUAC721.

Survey of United States legal institutions and processes as well as substantive areas of the law that affect business. Examination of tort and contract law, the legal forms of business organization and legal liability and major regulatory laws that affect business.

GS01	Jennifer Gershberg **Meets March 23, 2020 - May 8, 2020** W 6:25pm - 10:00pm	Seats (Total: 45) BLD2 2032

BUSI785 **Project Management in Dynamic Environments**

Credits: 2 Grading Method: Regular, Sat-Fail

Restriction: Must be in one of the following programs (Business and Management (Master's); Business and Management (Master's)) ; or permission of BMGT-Robert H. Smith School of Business.

Addresses project management skills that are required by successful managers in increasingly competitive and faster-moving environments. Examines fundamental concepts of successful project management, and the technical and managerial issues, methods, and techniques.

DC01	Sindhu Rajan	Seats (Total: 50)
	Meets March 23, 2020 - May 8, 2020	
	Th 6:25pm - 10:00pm	DC C1

BUSI798B **Global Business Experience; DOING BUSINESS IN BRAZIL**

(Perm req)

Credits: 2 Grading Method: Regular, Sat-Fail

Provides MBA students the opportunity to combine classroom learning and project research with seminars in a host country. The focus and locations visited will vary.

Contact department for information to register for this course.

BUSI798C **Global Business Experience; Doing Business in China**

(Perm req)

Credits: 2 Grading Method: Regular, Sat-Fail

Provides MBA students the opportunity to combine classroom learning and project research with seminars in a host country. The focus and locations visited will vary.

Contact department for information to register for this course.

BUSI798J **Global Business Experience; Doing Business in South Africa**

(Perm req)

Credits: 2 Grading Method: Regular, Sat-Fail

Provides MBA students the opportunity to combine classroom learning and project research with seminars in a host country. The focus and locations visited will vary.

Contact department for information to register for this course.

BUSI798M **Global Business Experience; Doing Business in the UAE**

(Perm req)

Credits: 2 Grading Method: Regular, Sat-Fail

Provides MBA students the opportunity to combine classroom learning and project research with seminars in a host country. The focus and locations visited will vary.

Contact department for information to register for this course.

BUSI798Y **Global Business Experience; Doing Business in Japan and Singapore**

(Perm req)

Credits: 2 Grading Method: Regular, Sat-Fail

Provides MBA students the opportunity to combine classroom learning and project research with seminars in a host country. The focus and locations visited will vary.

Contact department for information to register for this course.

BUSI799 **Masters Thesis Research**

(Perm req)

Credits: 1-6 Grading Method: Sat-Fail

Contact department for information to register for this course.

BUSM Full-Time MBA Program Spring 2020

BUSM614 **Strategic Management**

(Perm req)

Credits: 2 Grading Method: Regular, Sat-Fail

Restriction: Must be in Business and Management (Master's) program; or permission of BMGT-Robert H. Smith School of Business. Credit only granted for: BUSI690 or BUSM614.

Analyze and identify profit opportunities and threats in different industry and competitive environments; Analyze and identify a firm's valuable assets, resources and capabilities and how they might be protected, leveraged, and extended in the market; Learn how to organize your company to be the best prepared to adapt its strategy over time as the market environment changes; and how to use organic growth as well as mergers, acquisitions, joint ventures, alliances, and divestitures to ensure that the firm maintians the proper scale and scope to compete effectively over time.

0101	Paulo Prochno **Meets March 23, 2020 - May 8, 2020** MW 4:00pm - 5:50pm	Seats (Total: 0) VMH 2505
0201	Paulo Prochno **Meets March 23, 2020 - May 8, 2020** MW 2:00pm - 3:50pm	Seats (Total: 0) VMH 2505

BUSM624 **Operations Management**

(Perm req) Credits: 2 Grading Method: Regular, Sat-Fail

Restriction: Must be in Business and Management (Master's) program; or permission of BMGT-Robert H. Smith School of Business. Credit only granted for: BUSI634 or BUSM624.

Operations management is concerned with efficient and effective design and operation of business processes for delivering products and/or services. Emphasis is given to process analysis and design, capacity management and bottlenecks, waiting lines and the impact of uncertainty in process performance, quality management, lean, six-sigma, and revenue management.

0101	Anand Anandalingam **Meets January 21, 2020 - March 9, 2020** MW 2:00pm - 3:50pm	Seats (Total: 0) VMH 2505
0201	Anand Anandalingam **Meets January 21, 2020 - March 9, 2020** MW 4:00pm - 5:50pm	Seats (Total: 0) VMH 2505

BUSM626 The Global Economic Environment

(Perm req) Credits: 2 Grading Method: Regular, Sat-Fail

Restriction: Must be in Business and Management (Master's) program; or permission of BMGT-Robert H. Smith School of Business. Credit only granted for: BUSI683 or BUSM626.

Relationship between national and international economic environments. Determinants of output, interest rates, prices and exchange rates. Analysis of effect of economic policies (fiscal, monetary, trade, tax) on the firm and the economy.

0101	Charles Olson **Meets January 21, 2020 - March 9, 2020** MW 2:00pm - 3:50pm	Seats (Total: 0) VMH 1511
0201	Charles Olson **Meets January 21, 2020 - March 9, 2020** MW 4:00pm - 5:50pm	Seats (Total: 0) VMH 1511

BUSM701 Marketing Research Methods

(Perm req) Credits: 2 Grading Method: Regular, Sat-Fail

Prerequisite: BUSM606; and BUSM612. Restriction: Must be in Business and Management (Master's) program; or permission of BMGT-Robert H. Smith School of Business. Credit only granted for: BUMK701 or BUSM701. Formerly: BUMK701.

The process of acquiring, classifying and interpreting primary and secondary marketing data needed for intelligent, profitable marketing decisions. Evaluation of the appropriateness of alternative methodologies, such as the inductive, deductive, survey, observational, and experimental. Recent developments in the systematic recording and use of internal and external data needed for marketing decisions.

0101	Yogesh Joshi	Seats (Total: 0)
	Meets January 21, 2020 - March 9, 2020	
	TuTh 2:00pm - 3:50pm	VMH 2505

BUSM702 **Consumer Behavior**

(Perm req)

Credits: 2 Grading Method: Regular, Sat-Fail

Prerequisite: BUSM612. Restriction: Must be in Business and Management (Master's) program; or permission of BMGT-Robert H. Smith School of Business. Credit only granted for: BUMK715 or BUSM702.

Analysis of customer decision-making and how marketing strategy can be used to influence those decisions. The framework is a buyer behavior model, in which concepts from psychology, sociology, and economics are applied to individual and organizational purchase decisions. Marketing strategies of leading firms in consumer products, technology, and services (including internet services) are analyzed using a variety of case study formats. Focus is consumer behavior; however, principles can also be applied to the decision-making of business.

0101	Rosellina Ferraro	Seats (Total: 0)
	Meets January 21, 2020 - March 9, 2020	
	MW 10:00am - 11:50am	VMH 2505

BUSM705 **Brand Management**

(Perm req)

Credits: 2 Grading Method: Regular, Sat-Fail

Prerequisite: BUSM612. Restriction: Must be in Business and Management (Master's) program; or permission of BMGT-Robert H. Smith School of Business. Credit only granted for: BUMK716 or BUSM705.

Brand names are valuable assets for firms. Effective brand management is critical to maintaining the long-term profitability of products and services. Topics include understanding brands from the customer's perspective, building brand equity, measuring brand equity, leveraging brand equity, managing brand portfolios and managing brands over time.

0101	David Godes	Seats (Total: 0)
	Meets March 23, 2020 - May 8, 2020	
	TuTh 10:00am - 11:50am	VMH 2505

BUSM708 **Independent Study in Business**

(Perm req)

Credits: 1-6 Grading Method: Regular, Sat-Fail

Independent study for Masters students in Business.

Contact department for information to register for this course.

BUSM713 **Market Forecasting**

(Perm req)

Credits: 2 Grading Method: Regular, Sat-Fail

Prerequisite: BUSM606 and BUSM612. Restriction: Must be in Business and Management (Master's) program; or permission of BMGT-Robert H. Smith School of Business.

Students will learn a number of market forecasting methods, each appropriate for different contexts. The majority of this course focuses on quantitative modeling techniques based on established statistical methods. We also cover non-statistical methods that are often used when empirical data is scarce. This is a very hands-on class where students will apply the forecasting methods learned to real data.

0101	Wendy Moe	Seats (Total: 0)
	Meets March 23, 2020 - May 8, 2020	
	MW 12:00pm - 1:50pm	VMH 2505

BUSM733 **Valuation in Corporate Finance**

(Perm req)

Credits: 2 Grading Method: Regular, Sat-Fail

Prerequisite: BUSM610. Restriction: Must be in Business and Management (Master's) program; or permission of BMGT-Robert H. Smith School of Business. Credit only granted for: BUFN750 or BUSM733.

An advanced topics course in Corporate Finance dealing with valuation. Main topics will be, building pro forma statements, cost of capital, using ratios and comparables to value projects and firms, dicounted cash flow valuations, WACC and APV methods of valuation and Real Option Valuations.

0101	Maria Bustamante	Seats (Total: 0)
	Meets January 21, 2020 - March 9, 2020	
	TuTh 4:00pm - 5:50pm	VMH 2505

BUSM735 **Financial Strategy for Corporations**

(Perm req)

Credits: 2 Grading Method: Regular, Sat-Fail

Prerequisite: BUSM610. Restriction: Must be in Business and Management (Master's) program; or permission of BMGT-Robert H. Smith School of Business. Credit only granted for: BUFN751 or BUSM735.

An advanced course in corporate finance, focusing on the issues that firms face when they plan to raise external capital from financial markets. The focus is on the financing problems faced by mid-market to large firms and on capital raised from public markets. The forms of external finance vary from simple debt or equity to more complex securities that bundle with an element of risk management.

0101	Pablo Slutzky	Seats (Total: 0)
	Meets March 23, 2020 - May 8, 2020	
	MW 10:00am - 11:50am	VMH 2505

BUSM737 **Applied Equity Analysis**

(Perm req)

Credits: 2 Grading Method: Regular, Sat-Fail

Prerequisite: BUSM610. Restriction: Must be in Business and Management (Master's) program; or permission of BMGT-Robert H. Smith School of Business. Credit only granted for: BUFN760 or BUSM737.

Students will learn to analyze equity securities using the basic EIC (Economy/Industry/Company) framework used in the financial industry, paying special attention to financial statement analysis. Students also will learn the primary valuation techniques used to estimate market values for equity securities.

0101	Sarah Kroncke	Seats (Total: 0)
	Meets March 23, 2020 - May 8, 2020	
	TuTh 2:00pm - 3:50pm	VMH 2505

BUSM738A **Investment Fund Management; Mayer Fund**

(Perm req)

Credits: 3 Grading Method: Regular, Sat-Fail

Provides second-year Master in Business Administration students with the opportunity to apply the skills learned in finance classes to actual investment decisions through management of an investment fund.

0101	Sarah Kroncke	Seats (Total: 15)
	Meets January 21, 2020 - May 8, 2020	
	TuTh 10:00am - 11:50am	VMH 2509

BUSM750 **Project Management in Dynamic Environments**

(Perm req)

Credits: 2 Grading Method: Regular, Sat-Fail

Restriction: Must be in Business and Management (Master's) program; or permission of BMGT-Robert H. Smith School of Business. Credit only granted for: BUSI785 or BUSM750.

Addresses project management skills that are required by successful managers in increasingly competitive and faster-moving environments. Examines fundamental concepts of successful project management, and the technical and managerial issues, methods, and techniques.

0101	Anand Anandalingam	Seats (Total: 0)
	Meets January 21, 2020 - March 9, 2020	
	TuTh 10:00am - 11:50am	VMH 2505

BUSM758B **Special Topics in Business; Derivative Securities**

(Perm req)

Credits: 2 Grading Method: Regular, Sat-Fail

Selected advanced topics in the various fields of graduate study in business.

0101	Steven Heston	Seats (Total: 0)
	Meets January 21, 2020 - March 9, 2020	
	MW 12:00pm - 1:50pm	VMH 1505

BUSM758K **Special Topics in Business; Showcase 2020: Thought Leadership at Smith**

Credits: 2 Grading Method: Regular, Sat-Fail

Selected advanced topics in the various fields of graduate study in business.

0101	Wendy Moe, Shreevardhan Lele **Meets January 21, 2020 - May 8, 2020** Tu 12:00pm - 1:50pm	Seats (Total: 31) VMH 2505

BUSM758L **Special Topics in Business; Leading Strategically**

(Perm req)

Credits: 2 Grading Method: Regular, Sat-Fail

Selected advanced topics in the various fields of graduate study in business.

0101	Neta Moye **Meets March 23, 2020 - May 8, 2020** MW 2:00pm - 3:50pm	Seats (Total: 0) VMH 1505
0201	Neta Moye **Meets March 23, 2020 - May 8, 2020** MW 4:00pm - 5:50pm	Seats (Total: 0) VMH 1505

BUSM758O **Special Topics in Business; Navigating Organizational Networks**

(Perm req)

Credits: 2 Grading Method: Regular, Sat-Fail

Selected advanced topics in the various fields of graduate study in business.

0101	Kathryn Bartol **Meets March 23, 2020 - May 8, 2020** MW 12:00pm - 1:50pm	Seats (Total: 0) VMH 2511

BUSM758Z **Special Topics in Business; Integrative Capstone**

(Perm req)

Credits: 2 Grading Method: Regular, Sat-Fail

Selected advanced topics in the various fields of graduate study in business.

0101	Shreevardhan Lele **Meets January 21, 2020 - May 8, 2020** W 4:00pm - 5:50pm	Seats (Total: 0) VMH 2511

0201	Shreevardhan Lele	Seats (Total: 0)
	Meets January 21, 2020 - May 8, 2020	
	W 2:00pm - 3:50pm	VMH 2511

BUSM761 **Data Mining and Predictive Analytics**

(Perm req)

Credits: 2 Grading Method: Regular, Sat-Fail

Prerequisite: BUSM606. Restriction: Must be in Business and Management (Master's) program; or permission of BMGT-Robert H. Smith School of Business. Credit only granted for: BUDT733 or BUSM761. Formerly: BUDT733.

Data mining techniques and their use in business decision making. A hands-on course that provides an understanding of the key methods of data visualization, exploration, classification, prediction, time series forecasting, and clustering.

0101	Margret Bjarnadottir	Seats (Total: 0)
	Meets January 21, 2020 - March 9, 2020	
	MW 4:00pm - 5:50pm	VMH 1518
0201	Margret Bjarnadottir	Seats (Total: 0)
	Meets January 21, 2020 - March 9, 2020	
	MW 2:00pm - 3:50pm	VMH 1518

BUSM762 **Decision Analytics**

(Perm req)

Credits: 2 Grading Method: Regular, Sat-Fail

Prerequisite: BUSM606. Restriction: Must be in Business and Management (Master's) program; or permission of BMGT-Robert H. Smith School of Business. Credit only granted for: BUDT732 or BUSM762.

Analytical modeling for managerial decisions using a spreadsheet environment. Includes linear and nonlinear optimization models, decision making under uncertainty and simulation models.

0101	Sujin Kim	Seats (Total: 0)
	Meets March 23, 2020 - May 8, 2020	
	MW 10:00am - 11:50am	VMH 1511

BUSM775 **Global Strategy**

(Perm req)

Credits: 2

Grading Method: Regular, Sat-Fail

Restriction: Must be in Business and Management (Master's) program; or permission of BMGT-Robert H. Smith School of Business. Credit only granted for: BUMO754 or BUSM775.

Focuses on the "strategic" and "organizational" questions that a company must address as it globalizes its footprint. Among the questions that will be addressed are: What are the potential benefits, costs, and risks associated with going abroad? What differentiates a "global" from a "multidomestic" industry? What are the sources of competitive advantage in a global context?

0101	Paulo Prochno	Seats (Total: 0)
	Meets March 23, 2020 - May 8, 2020	
	TuTh 4:00pm - 5:50pm	VMH 2505

BUSM788B **Global Business Experience; Doing Business in Brazil**

(Perm req)

Credits: 2

Grading Method: Regular, Sat-Fail

Provides MBA students the opportunity to combine classroom learning and project research with seminars in a host country. The focus and locations visited will vary.

Contact department for information to register for this course.

BUSM788C **Global Business Experience; Doing Business in China**

(Perm req)

Credits: 2

Grading Method: Regular, Sat-Fail

Provides MBA students the opportunity to combine classroom learning and project research with seminars in a host country. The focus and locations visited will vary.

Contact department for information to register for this course.

BUSM788J **Global Business Experience; Doing Business in South Africa**

(Perm req)

Credits: 2

Grading Method: Regular, Sat-Fail

Provides MBA students the opportunity to combine classroom learning and project research with seminars in a host country. The focus and locations visited will vary.

Contact department for information to register for this course.

BUSM788M **Global Business Experience; Doing Business in the UAE**

(Perm req)

Credits: 2

Grading Method: Regular, Sat-Fail

Provides MBA students the opportunity to combine classroom learning and project research with seminars in a host country. The focus and locations visited will vary.

Contact department for information to register for this course.

BUSM788Y **Global Business Experience; Doing Business in Japan and Singapore**

(Perm req)

Credits: 2 Grading Method: Regular, Sat-Fail

Provides MBA students the opportunity to combine classroom learning and project research with seminars in a host country. The focus and locations visited will vary.

Contact department for information to register for this course.

BUSM798Q **Business Consulting; Business Consulting I**

(Perm req)

Credits: 2 Grading Method: Regular, Sat-Fail

Selected advanced topics in the various fields of graduate study in business.

0101	Nicole Coomber	Seats (Total: 0)
	Meets January 21, 2020 - May 8, 2020	
	M 10:00am - 11:50am	VMH 2511

BUSO Online MBA Program Spring 2020

BUSO603 **Data Analysis**

Credits: 2 Grading Method: Regular, Sat-Fail

Restriction: Must be in Business and Management (Master's) program; or permission of BMGT-Robert H. Smith School of Business.

Many different skills are required in arriving at informed managerial decisions. Among these are analytical and quantitative skills. Data Analysis is one in a sequence of two courses that seeks to develop these two important skills. More formally, the goals of this course are: to introduce basic statistical techniques: summarizing and presenting data; confidence intervals and hypothesis tests; regression analysis.; to implement these techniques using spreadsheets; and to become active users of data analysis in making managerial decisions.

SO11	Pallassana Kannan	Seats (Total: 22)
	Meets March 9, 2020 - April 25, 2020	
	M 8:45pm - 10:15pm	ONLINE
	Class time/details on ELMs	ONLINE

SO12	Lingling Zhang **Meets March 9, 2020 - April 25, 2020** M 7:00pm - 8:30pm Class time/details on ELMs	Seats (Total: 22) ONLINE ONLINE
SO13	Lingling Zhang **Meets March 9, 2020 - April 25, 2020** M 8:45pm - 10:15pm Class time/details on ELMs	Seats (Total: 22) ONLINE ONLINE
SO14	Sujin Kim **Meets March 9, 2020 - April 25, 2020** Tu 7:00pm - 8:30pm Class time/details on ELMs	Seats (Total: 22) ONLINE ONLINE
SO15	Sujin Kim **Meets March 9, 2020 - April 25, 2020** Tu 8:45pm - 10:15pm Class time/details on ELMs	Seats (Total: 22) ONLINE ONLINE
SO16	Alan Briggs **Meets March 9, 2020 - April 25, 2020** Tu 7:00pm - 8:30pm Class time/details on ELMs	Seats (Total: 22) ONLINE ONLINE
SO17	Alan Briggs **Meets March 9, 2020 - April 25, 2020** Tu 8:45pm - 10:15pm Class time/details on ELMs	Seats (Total: 22) ONLINE ONLINE

BUSO616 **Managerial Accounting**

Credits: 2 Grading Method: Regular, Sat-Fail

Prerequisite: BUSI610; or BUSO602; or BUSM602. Restriction: Must be in Business and Management (Master's) program; or permission of BMGT-Robert H. Smith School of Business. Credit only granted for: BUSI611, BUSM616 or BUSO616.

Use of accounting data in corporate planning and control. Cost-volume- profit analysis, budgeting, pricing decisions and cost data, transfer pricing, activity-based management, performance measures, and standard costing.

SO11	Stephen Brown **Meets January 20, 2020 - March 7, 2020** W 7:00pm - 8:30pm Class time/details on ELMs	Seats (Total: 22) ONLINE ONLINE
SO12	Stephen Brown **Meets January 20, 2020 - March 7, 2020** W 8:45pm - 10:15pm Class time/details on ELMs	Seats (Total: 23) ONLINE ONLINE
SO13	Samuel Handwerger **Meets January 20, 2020 - March 7, 2020** W 7:00pm - 8:30pm Class time/details on ELMs	Seats (Total: 22) ONLINE ONLINE
SO14	Samuel Handwerger **Meets January 20, 2020 - March 7, 2020** W 8:45pm - 10:15pm Class time/details on ELMs	Seats (Total: 23) ONLINE ONLINE
SO15	Eugene Cantor **Meets January 20, 2020 - March 7, 2020** Th 7:00pm - 8:30pm Class time/details on ELMs	Seats (Total: 23) ONLINE ONLINE
SO16	Eugene Cantor **Meets January 20, 2020 - March 7, 2020** Th 8:45pm - 10:15pm Class time/details on ELMs	Seats (Total: 23) ONLINE ONLINE
SO17	Tharinda W Ranasinghe **Meets January 20, 2020 - March 7, 2020** Th 7:00pm - 8:30pm Class time/details on ELMs	Seats (Total: 25) ONLINE ONLINE

BUSO620 **Strategic Information Systems**

Credits: 2 Grading Method: Regular, Sat-Fail

Restriction: Must be in Business and Management (Master's) program; or permission of BMGT-Robert H. Smith School of Business. Credit only granted for: BUSO620, BUSI621, BUSM621 or EMBA620.

Use of information technology to achieve competitive advantage, efficient operations, and effective decision making. Analysis of functions of information technology and its impact on competitive strategy and organizational operations.

SO11	Anand Gopal **Meets March 9, 2020 - April 25, 2020** W 7:00pm - 8:30pm Class time/details on ELMs	Seats (Total: 25) ONLINE ONLINE
SO12	Peter Weiss **Meets March 9, 2020 - April 25, 2020** W 7:00pm - 8:30pm Class time/details on ELMs	Seats (Total: 25) ONLINE ONLINE
SO13	Peter Weiss **Meets March 9, 2020 - April 25, 2020** W 8:45pm - 10:15pm Class time/details on ELMs	Seats (Total: 25) ONLINE ONLINE
SO14	Robert Smith **Meets March 9, 2020 - April 25, 2020** Th 7:00pm - 8:30pm Class time/details on ELMs	Seats (Total: 25) ONLINE ONLINE
SO15	Robert Smith **Meets March 9, 2020 - April 25, 2020** Th 8:45pm - 10:15pm Class time/details on ELMs	Seats (Total: 25) ONLINE ONLINE
SO17	Patrick Stack **Meets March 9, 2020 - April 25, 2020** Th 8:45pm - 10:15pm Class time/details on ELMs	Seats (Total: 25) ONLINE ONLINE

BUSO624 **Operations Management**

Credits: 2 Grading Method: Regular, Sat-Fail

Restriction: Must be in Business and Management (Master's) program; or permission of BMGT-Robert H. Smith School of Business. Credit only granted for: BUSI634, BUSM624 or BUSO624.

Operations management is concerned with efficient and effective design and operation of business processes for delivering products and/or services. Emphasis is given to process analysis and design, capacity management and bottlenecks, waiting lines and the impact of uncertainty in process performance, quality management, lean, six-sigma, and revenue management.

SO31	Yi Xu **Meets January 20, 2020 - March 7, 2020** W 7:00pm - 8:30pm Class time/details on ELMs	Seats (Total: 22) ONLINE ONLINE
SO32	Yi Xu **Meets January 20, 2020 - March 7, 2020** W 8:45pm - 10:15pm Class time/details on ELMs	Seats (Total: 25) ONLINE ONLINE
SO33	Ming Chen **Meets January 20, 2020 - March 7, 2020** W 7:00pm - 8:30pm Class time/details on ELMs	Seats (Total: 25) ONLINE ONLINE
SO35	Yi Xu **Meets January 20, 2020 - March 7, 2020** Th 7:00pm - 8:30pm Class time/details on ELMs	Seats (Total: 25) ONLINE ONLINE
SO36	Yi Xu **Meets January 20, 2020 - March 7, 2020** Th 8:45pm - 10:15pm Class time/details on ELMs	Seats (Total: 25) ONLINE ONLINE
SO37	Ming Chen **Meets January 20, 2020 - March 7, 2020** Th 7:00pm - 8:30pm Class time/details on ELMs	Seats (Total: 25) ONLINE ONLINE
SO38	Ming Chen **Meets January 20, 2020 - March 7, 2020** Th 8:45pm - 10:15pm Class time/details on ELMs	Seats (Total: 25) ONLINE ONLINE

BUSO626 **The Global Economic Environment**

Credits: 2 Grading Method: Regular, Sat-Fail

Restriction: Must be in Business and Management (Master's) program; or permission of BMGT-Robert H. Smith School of Business. Credit only granted for: BUSI683, BUSM626 or BUSO626.

Relationship between national and international economic environments. Determinants of output, interest rates, prices and exchange rates. Analysis of effect of economic policies (fiscal, monetary, trade, tax) on the firm and the economy.

SO11	Bennet Zelner **Meets January 20, 2020 - March 7, 2020** M 7:00pm - 8:30pm Class time/details on ELMs	Seats (Total: 22) ONLINE ONLINE
SO12	Bennet Zelner **Meets January 20, 2020 - March 7, 2020** M 8:45pm - 10:15pm Class time/details on ELMs	Seats (Total: 22) ONLINE ONLINE
SO13	Ioan Daraban **Meets January 20, 2020 - March 7, 2020** M 7:00pm - 8:30pm Class time/details on ELMs	Seats (Total: 22) ONLINE ONLINE
SO14	Bennet Zelner **Meets January 20, 2020 - March 7, 2020** Tu 7:00pm - 8:30pm Class time/details on ELMs	Seats (Total: 22) ONLINE ONLINE
SO15	Bennet Zelner **Meets January 20, 2020 - March 7, 2020** Tu 8:45pm - 10:15pm Class time/details on ELMs	Seats (Total: 22) ONLINE ONLINE
SO16	Ioan Daraban **Meets January 20, 2020 - March 7, 2020** Tu 7:00pm - 8:30pm Class time/details on ELMs	Seats (Total: 22) ONLINE ONLINE

SO17	Ioan Daraban	Seats (Total: 22)
	Meets January 20, 2020 - March 7, 2020	
	Tu 8:45pm - 10:15pm	ONLINE
	Class time/details on ELMs	ONLINE

BUSO700 **Fundamentals of Business**

Credits: 2 Grading Method: Regular, Sat-Fail

Restriction: Must be in Business and Management (Master's) program; or permission of BMGT-Robert H Smith School of Business.

This course introduces students to the language of business. Topics covered include financial accounting, financial management, data models, strategy, leadership and teamwork, and a brief action learning project on innovation. Pre-work includes the DISC assessment, and a requires a passing grade on a spreadsheet pre-work course.

SO91	Paulo Prochno	Seats (Total: 100)
	Meets January 16, 2020 - January 18, 2020	
	ThFSa 8:00am - 8:00pm	Location: TBA

BUSO701 **Integrative Business Capstone**

Credits: 2 Grading Method: Sat-Fail

Prerequisite: Students must have completed a minimum of 48 credit hours. Restriction: Must be in Business and Management (Master's) program; or permission of BMGT-Robert H. Smith School of Business.

This is an experiential course that involves an integrative business experience. This experience may be simulated through a software package or through content, speakers and events that are based in a realistic business setting. Students compete in teams. Each team makes decisions in areas such as human resources, compensation packages, geographic expansion through sales offices, debt versus equity financing, manufacturing and inventory management, marketing, including pricing, advertising and product design. The impact of each of these decisions flows through the three financial statements and results in financial outcomes and ratios that measure the success of each team. Additional metrics include stakeholders beyond investors such as employee morale, community engagement, and environmental impact. Students compete for financing and for customers. Multiple presentations are made by students during the simulation to explain their strategy, their tactics, and their planned investments.

SO92	Judy Frels **Meets May 1, 2020 - May 3, 2020** FSaSu 8:00am - 8:00pm	Seats (Total: 100) Location: TBA

BUSO702 **Action Learning Project I**

Credits: 1 Grading Method: Regular, Sat-Fail

Restriction: Must be in Business and Management (Master's) program; or permission of BMGT-Robert H. Smith School of Business.

The objective of the Action Learning Project I and II is for teams to identify and solve business problems that currently exist in organizations and in the process, to provide significant value to organizations and their stakeholders. The experience of solving business problems will both enable students to apply knowledge learned in core courses and to develop the wisdom, skills, and problem-solving capabilities of team members. This course is designed to promote independent learning. Faculty members will offer mini-modules on key themes such as team dynamics, client relations and consulting protocols but their primary role will be to facilitate the ALP process and serve as consultants to the student teams.Selecting the right project and defining it unambiguously sets the stage for the rest of the ALP process improvement or problem solving effort, ultimately leading to a relevant, value added and well-received deliverable. Poor problem selection creates longer-term problems for both ALP teams and the sponsoring organization and can reduce or impede the quality of your learning experience. For this reason, we will lay the foundation for the final selection of projects during this term (a) soliciting ideas from all students, and (b) offering feedback to identify and nurture the most promising ideas.

SO31	Protiti Dastidar **Meets March 9, 2020 - April 25, 2020** M 7:00pm - 8:30pm Class time/details on ELMs	Seats (Total: 22) ONLINE ONLINE
SO32	Protiti Dastidar **Meets March 9, 2020 - April 25, 2020** M 8:45pm - 10:15pm Class time/details on ELMs	Seats (Total: 22) ONLINE ONLINE
SO33	Neta Moye **Meets March 9, 2020 - April 25, 2020** M 7:00pm - 8:30pm Class time/details on ELMs	Seats (Total: 22) ONLINE ONLINE

SO34	Neta Moye **Meets March 9, 2020 - April 25, 2020** M 8:45pm - 10:15pm Class time/details on ELMs	Seats (Total: 22) ONLINE ONLINE
SO35	Toby Egan **Meets March 9, 2020 - April 25, 2020** Tu 7:00pm - 8:30pm Class time/details on ELMs	Seats (Total: 22) ONLINE ONLINE
SO36	Toby Egan **Meets March 9, 2020 - April 25, 2020** Tu 8:45pm - 10:15pm Class time/details on ELMs	Seats (Total: 22) ONLINE ONLINE
SO37	Nicole Coomber **Meets March 9, 2020 - April 25, 2020** Tu 8:45pm - 10:15pm Class time/details on ELMs	Seats (Total: 22) ONLINE ONLINE

BUSO704 **Ethical Leadership**

Credits: 2 Grading Method: Regular, Sat-Fail

Restriction: Must be in Business and Management (Master's) program; or permission of BMGT-Robert H. Smith School of Business. Credit only granted for: EMBA678 or BUSO704.

This course will examine business ethics issues across a variety of business contexts. You will learn toapply a number of ethical theories to business problems, primarily through case studies and discussion.The goal is for you to engage actively with the material and understand the complexity of many ethical dilemmas that businesses and business owners face. Often in ethics there is not one right answer; rather,businesses and individuals must wrestle with ethical principles that may compete and conflict with one another in arriving at a resolution. We will explore conflicts between personal values and organizationalgoals, ethics as part of a business strategy, and various ethical frameworks businesses may use in understanding and implementing ethical approaches to problems.

SO31	Trevor Foulk **Meets January 20, 2020 - March 7, 2020** M 7:00pm - 8:30pm Class time/details on ELMs	Seats (Total: 23) ONLINE ONLINE

SO32	Trevor Foulk **Meets January 20, 2020 - March 7, 2020** M 8:45pm - 10:15pm Class time/details on ELMs	Seats (Total: 23) ONLINE ONLINE
SO33	Jennifer Marr **Meets January 20, 2020 - March 7, 2020** M 7:00pm - 8:30pm Class time/details on ELMs	Seats (Total: 23) ONLINE ONLINE
SO34	Jennifer Marr **Meets January 20, 2020 - March 7, 2020** M 8:45pm - 10:15pm Class time/details on ELMs	Seats (Total: 23) ONLINE ONLINE
SO35	Trevor Foulk **Meets January 20, 2020 - March 7, 2020** Tu 7:00pm - 8:30pm Class time/details on ELMs	Seats (Total: 23) ONLINE ONLINE
SO36	Trevor Foulk **Meets January 20, 2020 - March 7, 2020** Tu 8:45pm - 10:15pm Class time/details on ELMs	Seats (Total: 23) ONLINE ONLINE
SO37	Jennifer Marr **Meets January 20, 2020 - March 7, 2020** Tu 7:00pm - 8:30pm Class time/details on ELMs	Seats (Total: 15) ONLINE ONLINE
SO38	Jennifer Marr **Meets January 20, 2020 - March 7, 2020** Tu 8:45pm - 10:15pm Class time/details on ELMs	Seats (Total: 23) ONLINE ONLINE

BUSO706 **Organizational Change**

Credits: 2 Grading Method: Regular, Sat-Fail

Prerequisite: BUSM600; or BUSO600; or BUSI662; or EMBA656. Restriction: Must be in Business and Management (Master's) program; or permission of BMGT-Robert H. Smith School of Business. Credit only granted for: BUSO706 or BUSM755.

Develops the advanced knowledge and skills of MBA students who plan to work with organizations as change agents. Concrete and useful strategies, tools, and interventions for diagnosing organizational change situations, analyzing problems, and designing and implementing organizational change. Draws on literature from organizational behavior, human resource management and strategic management to identify models as prescriptions of change.

SO61	Sheetal Singh **Meets January 2, 2020 - January 18, 2020** TuTh 4:30pm - 6:00pm Class time/details on ELMs *For PTMBA students only.*	Seats (Total: 25) ONLINE ONLINE
SO62	Adina Dabu **Meets January 2, 2020 - January 18, 2020** TuTh 6:30pm - 8:00pm Class time/details on ELMs *For PTMBA students only.*	Seats (Total: 25) ONLINE ONLINE
SO63	Adina Dabu **Meets January 2, 2020 - January 18, 2020** TuTh 8:30pm - 10:00pm Class time/details on ELMs *For PTMBA students only.*	Seats (Total: 25) ONLINE ONLINE

BUSO711 **Executive Powers and Negotiation**

Credits: 2 Grading Method: Regular, Sat-Fail

Restriction: Must be in Business and Management (Master's) program; or permission of BMGT-Robert H. Smith School of Business. Credit only granted for: BUMO714, BUSM754 or BUSO711.

Increase negotiating self-confidence and improve capacity to achieve win-win solutions to organizational problems. Improve effectiveness at finding creative solutions to conflict.

SO31	Gosia Langa Basit **Meets March 9, 2020 - April 25, 2020** M 7:00pm - 8:30pm Class time/details on ELMs	Seats (Total: 22) ONLINE ONLINE
SO32	Gosia Langa Basit **Meets March 9, 2020 - April 25, 2020** M 8:45pm - 10:15pm Class time/details on ELMs	Seats (Total: 22) ONLINE ONLINE
SO33	Jon Crocker **Meets March 9, 2020 - April 25, 2020** M 7:00pm - 8:30pm Class time/details on ELMs	Seats (Total: 22) ONLINE ONLINE
SO34	Jon Crocker **Meets March 9, 2020 - April 25, 2020** M 8:45pm - 10:15pm Class time/details on ELMs	Seats (Total: 22) ONLINE ONLINE
SO35	Cynthia Stevens **Meets March 9, 2020 - April 25, 2020** Tu 7:00pm - 8:30pm Class time/details on ELMs	Seats (Total: 22) ONLINE ONLINE
SO36	Shige Sakurai **Meets March 9, 2020 - April 25, 2020** Tu 8:45pm - 10:15pm Class time/details on ELMs	Seats (Total: 22) ONLINE ONLINE
SO37	Gosia Langa Basit **Meets March 9, 2020 - April 25, 2020** Tu 7:00pm - 8:30pm Class time/details on ELMs	Seats (Total: 22) ONLINE ONLINE
SO38	Gosia Langa Basit **Meets March 9, 2020 - April 25, 2020** Tu 8:45pm - 10:15pm Class time/details on ELMs	Seats (Total: 22) ONLINE ONLINE

BUSO714 **International Business**

Credits: 2 Grading Method: Regular, Sat-Fail

Restriction: Must be in Business and Management (Master's) program; or permission of BMGT-Robert H. Smith School of Business. Credit only granted for: BMGT794, BUSI761 or BUSO714.

The international business environment as it affects company policy and procedures. In-depth analysis and comprehensive case studies of the business functions undertaken in international operations.

SO31	Jeffrey Mund **Meets January 2, 2020 - January 19, 2020** MW 7:00pm - 8:30pm Class time/details on ELMs	Seats (Total: 23) ONLINE ONLINE
SO32	Jeffrey Mund **Meets January 2, 2020 - January 19, 2020** MW 8:45pm - 10:15pm Class time/details on ELMs	Seats (Total: 23) ONLINE ONLINE
SO33	Jon Crocker **Meets January 2, 2020 - January 19, 2020** TuTh 7:00pm - 8:30pm Class time/details on ELMs	Seats (Total: 23) ONLINE ONLINE
SO34	Jon Crocker **Meets January 2, 2020 - January 19, 2020** TuTh 8:45pm - 10:15pm Class time/details on ELMs	Seats (Total: 23) ONLINE ONLINE
SO35	Michael Ward **Meets January 2, 2020 - January 19, 2020** TuTh 7:00pm - 8:30pm Class time/details on ELMs	Seats (Total: 23) ONLINE ONLINE

SO61	Geoffrey Milsom **Meets January 2, 2020 - January 19, 2020** TuTh 4:30pm - 6:00pm Class time/details on ELMs *Restriction: For PTMBA students only. Class meets on 1/7, 1/9, 1/14, 1/16, 1/20 (Mon)*	Seats (Total: 25) ONLINE ONLINE
SO62	Geoffrey Milsom **Meets January 2, 2020 - January 19, 2020** TuTh 6:30pm - 8:00pm Class time/details on ELMs *Restriction: For PTMBA students only. Class meets on 1/7, 1/9, 1/14, 1/16, 1/20 (Mon)*	Seats (Total: 25) ONLINE ONLINE

BUSO733 **Data Mining and Predictive Analytics**

Credits: 2 Grading Method: Regular, Sat-Fail

Prerequisite: BUSM606; or BUSO607; or BUSI630. Restriction: Must be in Business and Management (Master's) program; or permission of BMGT-Robert H. Smith School of Business. Credit only granted for: BUDT733, BUSM761 or BUSO733.

Data mining techniques and their use in business decision making. A hands-on course that provides an understanding of the key methods of data visualization, exploration, classification, prediction, time series forecasting, and clustering.

SO51	Margret Bjarnadottir **Meets March 9, 2020 - April 25, 2020** Th 8:45pm - 10:15pm Class time/details on ELMs	Seats (Total: 25) ONLINE ONLINE
SO52	Margret Bjarnadottir **Meets March 9, 2020 - April 25, 2020** Th 7:00pm - 8:30pm Class time/details on ELMs	Seats (Total: 25) ONLINE ONLINE
SO53	Margret Bjarnadottir **Meets March 9, 2020 - April 25, 2020** W 7:00pm - 8:30pm Class time/details on ELMs	Seats (Total: 25) ONLINE ONLINE

BUSO740 **Customer Equity Management**

Credits: 2 Grading Method: Regular, Sat-Fail

Prerequisite: BUSI650; or BUSM612; or BUSO612. Restriction: Must be in Business and Management (Master's) program; or permission of BMGT-Robert H. Smith School of Business. Credit only granted for: BUMK722, BUMK750 or BUSO740.

This course focuses on managing customers of a business, whether in B2B or B2C space, as a portfolio of equity. It provides an understanding of the current and future value of customers to the business. Topics include selective acquisition, development, and retention of customers using latest developments in information technology.

SO51	Pallassana Kannan **Meets March 9, 2020 - April 25, 2020** W 8:45pm - 10:15pm Class time/details on ELMs	Seats (Total: 25) ONLINE ONLINE
SO53	Pallassana Kannan **Meets March 9, 2020 - April 25, 2020** Th 8:45pm - 10:15pm Class time/details on ELMs	Seats (Total: 25) ONLINE ONLINE

BUSO752 **Innovative Solutions to Supply Chain Challenges**

Credits: 2 Grading Method: Regular, Sat-Fail

Restriction: Must be in Business and Management (Master's) program; or permission of BMGT-Robert H. Smith School of Business.

This course is designed to provide you with practical challenges to implement innovative and effective actions to achieve the goalof enhanced supply chain operations. You will be challenged to function as a supply chain executive in charge of major decisions.The course is designed to be a mix of action-focused learning combined with some very recent and interesting examples of howcompanies are addressing their own supply chain challenges in innovative ways.

SO51	Rohan D Lima **Meets March 9, 2020 - April 25, 2020** Th 8:45pm - 10:15pm Class time/details on ELMs	Seats (Total: 25) ONLINE ONLINE

SO52	Thomas Corsi **Meets March 9, 2020 - April 25, 2020** W 8:45pm - 10:15pm Class time/details on ELMs	Seats (Total: 25) ONLINE ONLINE

BUSO758C **Special Topics in Business; Corporate Venturing**

Credits: 2 Grading Method: Regular, Sat-Fail

Selected advanced topics in the various fields of graduate study in business.

SO33	Oliver Schlake **Meets January 2, 2020 - January 18, 2020** TuTh 7:00pm - 8:30pm Class time/details on ELMs	Seats (Total: 25) ONLINE ONLINE
SO34	Oliver Schlake **Meets January 2, 2020 - January 18, 2020** TuTh 8:45pm - 10:15pm Class time/details on ELMs	Seats (Total: 25) ONLINE ONLINE
SO61	Oliver Schlake **Meets January 2, 2020 - January 18, 2020** MW 7:00pm - 8:30pm Class time/details on ELMs	Seats (Total: 25) ONLINE ONLINE
SO62	Oliver Schlake **Meets January 2, 2020 - January 18, 2020** MW 8:45pm - 10:15pm Class time/details on ELMs	Seats (Total: 25) ONLINE ONLINE

BUSO758P **Special Topics in Business; Applied Equity Analysis**

Credits: 2 Grading Method: Regular, Sat-Fail

Selected advanced topics in the various fields of graduate study in business.

SO51	Joseph Perfetti **Meets March 9, 2020 - April 25, 2020** W 8:45pm - 10:15pm Class time/details on ELMs	Seats (Total: 25) ONLINE ONLINE
SO52	Joseph Perfetti **Meets March 9, 2020 - April 25, 2020** W 7:00pm - 8:30pm Class time/details on ELMs	Seats (Total: 25) ONLINE ONLINE

BUSO759 **Independent Study in Business**

(Perm req)

Credits: 1-4 Grading Method: Regular, Sat-Fail

Independent study for Masters students in Business.

Contact department for information to register for this course.

BUSO781 **The Impact of Taxation on Business Entities**

Credits: 2 Grading Method: Regular, Sat-Fail

Restriction: Must be in Business and Management (Master's) program; or permission of BMGT-Robert H. Smith School of Business.

Tax Strategies for Business Planning and Investment provides a study of how federal and state taxes affect business strategy. The course focuses on the taxation of business entities and transactions. Concepts of taxing jurisdictions, taxes as transaction costs, maxims of income tax planning and jurisdictional issues in taxation are reviewed with particular emphasis on their impact on business operations. The course examines the choice of business entity, examining the taxation of flow-through entities (partnerships, LLCs, and S corporations) and C corporations (separately taxed entities). The course also examines investment and personal financial planning.

SO51	Eugene Cantor **Meets March 9, 2020 - April 25, 2020** Th 8:45pm - 10:15pm Class time/details on ELMs	Seats (Total: 25) ONLINE ONLINE

BUSO788B **Business Consulting; DOING BUSINESS IN BRAZIL**

(Perm req)

Credits: 2 Grading Method: Regular, Sat-Fail

Selected advanced topics in the various fields of graduate study in business.

Contact department for information to register for this course.

BUSO788C **Business Consulting; Doing Business in China**

(Perm req)

Credits: 2 Grading Method: Regular, Sat-Fail

Selected advanced topics in the various fields of graduate study in business.

Contact department for information to register for this course.

BUSO788J **Business Consulting; Doing Business in South Africa**

(Perm req)

Credits: 2 Grading Method: Regular, Sat-Fail

Selected advanced topics in the various fields of graduate study in business.

Contact department for information to register for this course.

BUSO788M **Business Consulting; Doing Business in the UAE**

(Perm req)

Credits: 2 Grading Method: Regular, Sat-Fail

Selected advanced topics in the various fields of graduate study in business.

Contact department for information to register for this course.

BUSO788Y **Business Consulting; Doing Business in Japan and Singapore**

(Perm req)

Credits: 2 Grading Method: Regular, Sat-Fail

Selected advanced topics in the various fields of graduate study in business.

Contact department for information to register for this course.

CBMG Cell Biology & Molecular Genetics Spring 2020

CBMG688B **Special Topics in Cell Biology and Molecular Genetics; Responsible Conduct of Research for Advanced Scholars**

Credits: 1 Grading Method: Regular, Sat-Fail

Presentation and discussion of fundamental problems and special subjects in the topics of Cell Biology and Molecular Genetics.

Responsible Conduct of Research, for individuals who have already completed at least one graduate course in RCR. Satisfies 4 year refresher requirement.

0101	Charles Delwiche	Seats (Total: 15)
	Meets March 18, 2020 - May 12, 2020	
	M 4:00pm - 6:00pm	BRB 3101

CBMG688F **Special Topics in Cell Biology and Molecular Genetics; Gene Expression**

Credits: 2 Grading Method: Regular, Audit, Sat-Fail

Presentation and discussion of fundamental problems and special subjects in the topics of Cell Biology and Molecular Genetics.

0101	Daniel Dwyer, Jiqiang Ling	Seats (Total: 35)
	Meets January 27, 2020 - March 14, 2020	
	TuTh 4:00pm - 6:00pm	BRB 3101

CBMG688G **Special Topics in Cell Biology and Molecular Genetics; Computational Virology**

Credits: 2 Grading Method: Regular, Audit, Sat-Fail

Presentation and discussion of fundamental problems and special subjects in the topics of Cell Biology and Molecular Genetics.

0101	Brian Pierce	Seats (Total: 15)
	Meets March 18, 2020 - May 12, 2020	
	MW 4:00pm - 5:50pm	MCB 2119

CBMG688I **Special Topics in Cell Biology and Molecular Genetics; Genetic Analysis**

Credits: 2 Grading Method: Regular, Audit, Sat-Fail

Presentation and discussion of fundamental problems and special subjects in the topics of Cell Biology and Molecular Genetics.

0101	Stephen Mount	Seats (Total: 30)
	Meets March 18, 2020 - May 12, 2020	
	TuTh 4:00pm - 6:00pm	MCB 2119

CBMG688L **Special Topics in Cell Biology and Molecular Genetics; Microbial Pathogenesis**

Credits: 2 Grading Method: Regular, Audit, Sat-Fail

Presentation and discussion of fundamental problems and special subjects in the topics of Cell Biology and Molecular Genetics.

0101	Kevin McIver, Volker Briken	Seats (Total: 20)
	Meets January 27, 2020 - March 14, 2020	
	MW 8:00am - 10:00am	MCB 1123

CBMG688U **Special Topics in Cell Biology and Molecular Genetics; Rigor and Reproducibility in Research**

Credits: 1 Grading Method: Regular, Sat-Fail

Presentation and discussion of fundamental problems and special subjects in the topics of Cell Biology and Molecular Genetics.

Experimental design, vouchering and validation, perils and pitfalls in statistical analysis, data management and archiving, and effective publication. Qualifies for BISI professional development requirement.

0101	Charles Delwiche	Seats (Total: 15)
	Meets January 27, 2020 - March 14, 2020	
	M 4:00pm - 6:00pm	BRB 3101

CBMG688X **Special Topics in Cell Biology and Molecular Genetics; Virology Program**

Credits: 2 Grading Method: Regular, Audit, Sat-Fail

Presentation and discussion of fundamental problems and special subjects in the topics of Cell Biology and Molecular Genetics.

0101	Anne Simon	Seats (Total: 20)
	F 3:00pm - 5:00pm	HJP 1216

CBMG699 **Special Problems in Cell Biology and Molecular Genetics**

Credits: 1-3 Grading Method: Regular, Audit, Sat-Fail

Emphasis is placed on research and discussion of current problems in the area of Cell Biology and Molecular Genetics.

Contact department for information to register for this course.

CBMG699C **Special Problems in Cell Biology and Molecular Genetics; Cell Biology**

Credits: 3

Grading Method: Regular, Audit, Sat-Fail

Emphasis is placed on research and discussion of current problems in the area of Cell Biology and Molecular Genetics.

0101	Sougata Roy, Vera Stupina	Seats (Total: 8)	
	TuTh 11:00am - 12:15pm	MCB 1207	

CBMG699D **Special Problems in Cell Biology and Molecular Genetics; Molecular Genetics: Bioinformatics and Computation Biology**

Credits: 1

Grading Method: Regular, Audit, Sat-Fail

Emphasis is placed on research and discussion of current problems in the area of Cell Biology and Molecular Genetics.

0101	Stephen Mount	Seats (Total: 20)	
	Contact instructor or department for details.		

CBMG699W **Special Problems in Cell Biology and Molecular Genetics; Immunology**

Credits: 3

Grading Method: Regular, Sat-Fail

Emphasis is placed on research and discussion of current problems in the area of Cell Biology and Molecular Genetics.

0101	Kenneth Frauwirth, David Mosser	Seats (Total: 7)	
	MW 12:00pm - 12:50pm	BPS 1243	
	F 2:00pm - 2:50pm	PLS 1111	Discussion

CBMG699X **Special Problems in Cell Biology and Molecular Genetics; Host Pathogen Interactions**

Credits: 1

Grading Method: Regular, Audit, Sat-Fail

Emphasis is placed on research and discussion of current problems in the area of Cell Biology and Molecular Genetics.

0101	David Mosser	Seats (Total: 20)	
	F 9:00am - 10:30am	BRB 3101	

CBMG699Z **Special Problems in Cell Biology and Molecular Genetics; Protein Translation**

Credits: 1 Grading Method: Regular, Audit, Sat-Fail

Emphasis is placed on research and discussion of current problems in the area of Cell Biology and Molecular Genetics.

0101	Jonathan Dinman F 9:30am - 10:30am	Seats (Total: 10) MCB 1121

CBMG799 **Masters Thesis Research**

Credits: 1-6 Grading Method: Sat-Fail

Master's Thesis Research in Cell Biology and Molecular Genetics.

Contact department for information to register for this course.

CBMG898 **Pre-Candidacy Research**

(Perm req)

Credits: 1-8 Grading Method: Regular, Sat-Fail

Pre-candidacy Research.

Contact department for information to register for this course.

CBMG899 **Doctoral Dissertation Research**

(Perm req)

Credits: 6 Grading Method: Sat-Fail

Doctoral Dissertation Research.

Contact department for information to register for this course.

CCJS Criminology and Criminal Justice Spring 2020

CCJS100 **Introduction to Criminal Justice**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit CORE: SB General Education: DSHS

Introduction to the administration of criminal justice in a democratic society, with emphasis on the theoretical and historical development of law enforcement. The principles of organization and administration for law enforcement; functions and specific activities; planning and research; public relations; personnel and training; inspection and control; direction; policy formulation.

0101	Justine Madoo MW 11:00am - 11:50am M 2:00pm - 2:50pm	Seats (Total: 30) ARM 0135 KNI 1105	 Discussion

0102	Justine Madoo MW 11:00am - 11:50am M 10:00am - 10:50am	Seats (Total: 30) ARM 0135 ASY 3215	Discussion
0103	Justine Madoo MW 11:00am - 11:50am M 12:00pm - 12:50pm	Seats (Total: 30) ARM 0135 LEF 1201	Discussion
0104	Justine Madoo MW 11:00am - 11:50am M 1:00pm - 1:50pm	Seats (Total: 30) ARM 0135 TYD 0101	Discussion
0105	Justine Madoo MW 11:00am - 11:50am Tu 9:30am - 10:20am	Seats (Total: 30) ARM 0135 LEF 1220	Discussion
0106	Justine Madoo MW 11:00am - 11:50am Tu 11:00am - 11:50am	Seats (Total: 30) ARM 0135 LEF 1220	Discussion
0107	Justine Madoo MW 11:00am - 11:50am Tu 12:30pm - 1:20pm	Seats (Total: 30) ARM 0135 SQH 1103	Discussion
0108	Justine Madoo MW 11:00am - 11:50am Tu 2:00pm - 2:50pm	Seats (Total: 30) ARM 0135 KEY 0100	Discussion
0201	Justine Madoo MW 10:00am - 10:50am W 11:00am - 11:50am	Seats (Total: 30) SKN 0200 SQH 1103	Discussion
0202	Justine Madoo MW 10:00am - 10:50am W 9:00am - 9:50am	Seats (Total: 30) SKN 0200 ASY 3215	Discussion
0203	Justine Madoo MW 10:00am - 10:50am W 1:00pm - 1:50pm	Seats (Total: 30) SKN 0200 LEF 0135	Discussion

0204	Justine Madoo MW 10:00am - 10:50am W 2:00pm - 2:50pm	Seats (Total: 30) SKN 0200 SQH 1121	Discussion
0205	Justine Madoo MW 10:00am - 10:50am Th 9:30am - 10:20am	Seats (Total: 30) SKN 0200 SQH 1103	Discussion
0206	Justine Madoo MW 10:00am - 10:50am Th 11:00am - 11:50am	Seats (Total: 30) SKN 0200 LEF 0135	Discussion
0207	Justine Madoo MW 10:00am - 10:50am Th 12:30pm - 1:20pm	Seats (Total: 30) SKN 0200 HBK 0109	Discussion
0208	Justine Madoo MW 10:00am - 10:50am Th 2:00pm - 2:50pm	Seats (Total: 30) SKN 0200 HBK 0123	Discussion

CCJS105 **Introduction to Criminology**

Credits: 3 | Grading Method: Regular, Pass-Fail, Audit | CORE: SB | General Education: DSHS

Criminal behavior and the methods of its study; causation; typologies of criminal acts and offenders; punishment, correction and incapacitation; prevention of crime.

0101	Sally Simpson MW 12:00pm - 12:50pm M 10:00am - 10:50am	Seats (Total: 30) HJP 0226 ESJ 0215	Discussion
0102	Sally Simpson MW 12:00pm - 12:50pm M 1:00pm - 1:50pm	Seats (Total: 30) HJP 0226 ESJ 0215	Discussion
0103	Sally Simpson MW 12:00pm - 12:50pm F 12:00pm - 12:50pm	Seats (Total: 30) HJP 0226 ESJ 0215	Discussion

0104	Sally Simpson MW 12:00pm - 12:50pm M 2:00pm - 2:50pm	Seats (Total: 30) HJP 0226 ESJ 0215	 Discussion
0105	Sally Simpson MW 12:00pm - 12:50pm W 10:00am - 10:50am	Seats (Total: 30) HJP 0226 TYD 0101	 Discussion
0106	Sally Simpson MW 12:00pm - 12:50pm W 9:00am - 9:50am	Seats (Total: 30) HJP 0226 TYD 0101	 Discussion
0107	Sally Simpson MW 12:00pm - 12:50pm W 1:00pm - 1:50pm	Seats (Total: 30) HJP 0226 HJP 2242	 Discussion
0108	Sally Simpson MW 12:00pm - 12:50pm F 11:00am - 11:50am	Seats (Total: 30) HJP 0226 BPS 0283	 Discussion
0201	Kyle Dorsey TuTh 12:30pm - 1:20pm M 2:00pm - 2:50pm	Seats (Total: 30) HJP 0226 HBK 0123	 Discussion
0202	Kyle Dorsey TuTh 12:30pm - 1:20pm Tu 9:30am - 10:20am	Seats (Total: 30) HJP 0226 LEF 1201	 Discussion
0203	Kyle Dorsey TuTh 12:30pm - 1:20pm Th 2:00pm - 2:50pm	Seats (Total: 30) HJP 0226 JMZ 0205	 Discussion
0204	Kyle Dorsey TuTh 12:30pm - 1:20pm W 12:00pm - 12:50pm	Seats (Total: 30) HJP 0226 HBK 0105	 Discussion
0205	Kyle Dorsey TuTh 12:30pm - 1:20pm Th 9:30am - 10:20am	Seats (Total: 30) HJP 0226 SQH 2120	 Discussion

0206	Kyle Dorsey TuTh 12:30pm - 1:20pm M 11:00am - 11:50am	Seats (Total: 30) HJP 0226 LEF 1201	Discussion
0207	Kyle Dorsey TuTh 12:30pm - 1:20pm W 2:00pm - 2:50pm	Seats (Total: 30) HJP 0226 LEF 0135	Discussion
0208	Kyle Dorsey TuTh 12:30pm - 1:20pm Tu 2:00pm - 2:50pm	Seats (Total: 30) HJP 0226 BPS 1232	Discussion

CCJS200 **Statistics for Criminology and Criminal Justice**

(Perm req)

Credits: 3 Grading Method: Regular, Pass-Fail, Audit General Education: FSAR

Prerequisite: CCJS100 or CCJS105. And 1 course with a minimum grade of C- from (STAT100, MATH107, MATH111, MATH120, MATH130, MATH135, MATH140); or must have completed MATH220 with a minimum grade of C-. Restriction: Must be in Criminology and Criminal Justice program; or permission of BSOS-Criminology & Criminal Justice department. Credit only granted for: BIOM301, BMGT230, CCJS200, ECON230, ECON321, EDMS451, GEOG306, GEOL351, GVPT422, INST314, JOUR405, PSYC200 or SOCY201. (These courses do not necessarily meet the same major requirements-check with your advisor to see which of these courses will count for your major).

Introduction to descriptive and inferential statistics, graphical techniques, and the computer analysis of criminology and criminal justice data. Basic procedures of hypothesis testing, correlation and regression analysis, and the analysis of continuous and binary dependent variables. Emphasis upon the examination of research problems and issues in criminology and criminal justice.

0101	Greg Midgette TuTh 9:30am - 10:45am Th 3:00pm - 3:50pm	Seats (Total: 30) MMH 1400 LEF 1201	Discussion
0102	Greg Midgette TuTh 9:30am - 10:45am Th 2:00pm - 2:50pm	Seats (Total: 30) MMH 1400 KEY 0100	Discussion
0103	Greg Midgette TuTh 9:30am - 10:45am F 12:00pm - 12:50pm	Seats (Total: 30) MMH 1400 SQH 1101	Discussion

0104	Greg Midgette TuTh 9:30am - 10:45am Th 1:00pm - 1:50pm	Seats (Total: 30) MMH 1400 SQH 1103	Discussion
0105	Greg Midgette TuTh 9:30am - 10:45am F 11:00am - 11:50am	Seats (Total: 30) MMH 1400 ASY 3211	Discussion
0106	Greg Midgette TuTh 9:30am - 10:45am F 10:00am - 10:50am	Seats (Total: 30) MMH 1400 TWS 0236	Discussion

CCJS225 **Responses to Violence**

Credits: 3 | Grading Method: Regular, Pass-Fail, Audit | General Education: DSHS, DSSP, SCIS

Conflict is unfortunately resolved through violence in a number of settings. It ranges from interpersonal to international in its scope. This course investigates the strengths and weakness of a number of resolutions to reducing violence over the course of history using both state centered and informal control.

0101	Kyle Dorsey MWF 11:00am - 11:50am	Seats (Total: 50) ESJ 1215

CCJS230 **Criminal Law in Action**

(Perm req)

Credits: 3 | Grading Method: Regular, Pass-Fail, Audit

Prerequisite: CCJS100.

Law as one of the methods of social control. Criminal law: its nature, sources and types; theories and historical developments. Behavioral and legal aspects of criminal acts. Classification and analysis of selected criminal offenses.

0101	Cortney Fisher TuTh 3:30pm - 4:45pm	Seats (Total: 100) BPS 1243
0201	Russell Hamill W 4:00pm - 6:30pm	Seats (Total: 100) MMH 1400

CCJS234 **Law of Criminal Investigation**

(Perm req)

Credits: 3

Grading Method: Regular, Pass-Fail, Audit

Prerequisite: CCJS100 and CCJS230.

General principles and theories of criminal procedure. Due process. Arrest, search and seizure. Recent developments. Study and evaluation of evidence and proof.

0101	David Salem W 6:00pm - 8:30pm	Seats (Total: 100) TYD 0117

CCJS300 **Criminological and Criminal Justice Research Methods**

(Perm req)

Credits: 3

Grading Method: Regular, Pass-Fail, Audit

General Education: DSSP

Prerequisite: CCJS100 and CCJS105; and (PSYC200, CCJS200, ECON321, BMGT230, or SOCY201).

Introduction to the formulation of research questions covering crime and justice, research designs, data collection, and interpretation and reporting in criminological and justice-system settings.

0101	Laure Brooks MWF 9:00am - 9:50am	Seats (Total: 60) LEF 2166
0201	Laure Brooks MWF 11:00am - 11:50am	Seats (Total: 60) LEF 2166
0301	Alan Lehman TuTh 12:30pm - 1:45pm	Seats (Total: 60) TWS 1100
0401	Alan Lehman TuTh 11:00am - 12:15pm	Seats (Total: 60) SHM 2102
SG91	Thomas Alexander M 11:00am - 1:30pm *Restricted to CCJS students at Shady Grove.*	Seats (Total: 40) BLD3 2225

CCJS320 **Introduction to Criminalistics**

(Perm req)

Credits: 3

Grading Method: Regular, Pass-Fail, Audit

Prerequisite: CCJS100 and CCJS230.

An introduction to modern methods used in the detection, investigation and solution of crimes. Practical analysis of evidence in a crime laboratory, including fingerprints and other impressions, firearms ID and ballistics, hairs and fibers, document examination, and use of polygraph.

Students must pay a $53.00 lab fee.

0101	Thomas Mauriello Class time/details on ELMs M 11:00am - 1:45pm	Seats (Total: 24) ONLINE MMH 2401	 Lab
0201	Thomas Mauriello Class time/details on ELMs M 2:30pm - 5:15pm	Seats (Total: 24) ONLINE MMH 2401	 Lab
0301	Thomas Mauriello Class time/details on ELMs M 6:00pm - 8:45pm	Seats (Total: 24) ONLINE MMH 2401	 Lab

CCJS325 **Slavery in the Twenty First Century: Combating Human Trafficking**

Credits: 3 | Grading Method: Regular, Pass-Fail, Audit | General Education: DSHS, SCIS

Credit only granted for: CCJS325 or CCJS498R. Formerly: CCJS498R.

The trafficking of human beings in its historical, legal, economic, political and social contexts. Scope of the global problem, different forms of human trafficking, and regional trends and practices. Roles of government, the international community and individual actors. Strategies to combat trafficking.

0101	Kyle Dorsey MWF 10:00am - 10:50am	Seats (Total: 60) HJP 2242	
0201	Kyle Dorsey MWF 1:00pm - 1:50pm	Seats (Total: 60) TYD 0117	
SG91	Wendy Stickle W 9:30am - 12:00pm *Limit to CCJS students at Shady Grove.*	Seats (Total: 40) BLD4 3308	

CCJS332 **Major Transitions: From Undergraduate to Professional**

(Perm req)

Credits: 1 | Grading Method: Regular, Pass-Fail, Audit

Restriction: Must be in Criminology and Criminal Justice program; and sophomore standing or higher.

This course is designed to assist criminology and criminal justice students explore career opportunities. Topics will include: graduate school, law school, career opportunities in federal, state, local, and public agencies, resume writing, and internships.

0101	Nicole Jackson W 12:00pm - 12:50pm	Seats (Total: 50) TYD 1102

CCJS340 **Policing**

(Perm req)

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Prerequisite: CCJS100.

Critical issues relating to policing. Topics include police discretion, role of police, use of force, misconduct, police research, administration, personnel, and etc.

0101	Laure Brooks MWF 10:00am - 10:50am	Seats (Total: 200) LEF 2205
0201	David Mitchell TuTh 2:00pm - 3:15pm	Seats (Total: 50) PHY 4221

CCJS342 **Corrections**

(Perm req)

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Prerequisite: CCJS100. Restriction: Must be in a major within the BSOS-Criminology & Criminal Justice department. Credit only granted for: CCJS342 or CCJS452.

Examination of the American correctional system. Identification of historical and contemporary themes, issues, and trends. Evaluation of correctional policies, practices and research.

0201	Lauren Porter TuTh 12:30pm - 1:45pm	Seats (Total: 60) ASY 1213
0301	Jessica Miller MWF 12:00pm - 12:50pm	Seats (Total: 60) SQH 1119
SG91	William Sollod Tu 3:30pm - 6:00pm	Seats (Total: 40) BLD3 2225

CCJS345 **Courts and Sentencing**

(Perm req)

Credits: 3

Grading Method: Regular, Pass-Fail, Audit

Prerequisite: CCJS100. Restriction: Must be in a major within the BSOS-Criminology & Criminal Justice department.

Contemporary issues in the American court system such as prosecution, sentencing and punishment. Theoretical perspectives on courtroom decision-making integrated with empirical research. Courts and sentencing processes, including initial charging, pretrial detention and final sentencing outcomes. Innovations in courts and sentencing.

0101	David Salem	Seats (Total: 60)
	Tu 6:00pm - 8:30pm	SKN 0104

CCJS346 **Domestic Violence**

Credits: 3

Grading Method: Regular, Pass-Fail, Audit

Prerequisite: CCJS100. Credit only granted for: CCJS346 or CCJS498Y. Formerly: CCJS498Y.

A thorough and critical examination of family violence. Topics include the historical background to family violence, methods of studying this serious issue, elder abuse, child abuse, the cultural factors involved in intimate partner violence, violence in same-sex relationships, and the criminal justice response to family violence. Although the course focuses on the American family, illustrations from other cultures are provided.

SG91	Nicole Romeiser	Seats (Total: 30)
	Tu 11:00am - 1:30pm	BLD3 2225
	Limit to CCJS students at Shady Grove.	

CCJS358B **Special Topics in Study Abroad III; Criminology in Scandanavia**

Credits: 3

Grading Method: Regular, Pass-Fail, Audit

Special topics course taken as part of an approved study abroad program.

Contact department for information to register for this course.

CCJS359 **Field Training in Criminology and Corrections**

(Perm req)

Credits: 1-6

Grading Method: Regular, Pass-Fail, Audit

Supervised field training in public or private social agencies. Group meetings, individual conferences and written program reports.

Prerequisites: CCJS 105 or CRIM 220; and CCJS 350 or CRIM 450; and permission of department. For majors only.

Contact department for information to register for this course.

CCJS360 **Victimology**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Prerequisite: CCJS105.

Overview of the history and theory of victimology. Analysis of victimization patterns with special emphasis on types of victims and crimes. The interaction between victims of crime and the criminal justice system with respect to the role of the victim and the services offered to the victim.

0101	Cortney Fisher TuTh 5:00pm - 6:15pm	Seats (Total: 100) BPS 1243
SG91	Louis Morlier Class time/details on ELMs	Seats (Total: 40) ONLINE
	Registration is restricted to Biological Sciences - Shady Grove majors. Permission is required for all other students to enroll in courses at Shady Grove. Please email usgbiosci@umd.edu for permission.	

CCJS370 **Race, Crime and Criminal Justice**

(Perm req)

Credits: 3 Grading Method: Regular, Pass-Fail, Audit , D General Education: DVUP

Prerequisite: CCJS100.

Role and treatment of racial/ethnic minorities in the criminal justice system. Course will provide students with historical and theoretical framework for understanding this dynamic.

0101	Maria Velez MWF 11:00am - 11:50am	Seats (Total: 50) HJP 2242

CCJS386 **Experiential Learning**

(Perm req)

Credits: 3 Grading Method: Regular, Pass-Fail

Restriction: Permission of BSOS-Criminology & Criminal Justice department; and junior standing or higher.

Contact department for information to register for this course.

CCJS398 **Law Enforcement Field Training**

(Perm req)

Credits: 1-6 Grading Method: Regular, Pass-Fail, Audit

Supervised, structured and focused field training in law enforcement agencies.

Prerequisite: junior standing. For majors only.

Contact department for information to register for this course.

CCJS399 **Independent Study in Criminology and Criminal Justice**

(Perm req)

Credits: 1-3 Grading Method: Regular, Pass-Fail, Audit

Integrated reading or research under direction and supervision of a faculty member.

Prerequisite: written consent of faculty under whose direction the study is to be performed, and at least twelve hours of CCJS credits.

Contact department for information to register for this course.

CCJS418A **Seminar in Criminology and Criminal Justice; Offender Re-entry**

(Perm req)

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Selected topics of interest in the field of Criminology and Criminal Justice will be covered.

Prerequisites: CCJS 100, CCJS 105, and CCJS 300.

0101	Justine Madoo	Seats (Total: 50)
	TuTh 9:30am - 10:45am	LEF 2166

CCJS418B **Seminar in Criminology and Criminal Justice; Cyber Investigations**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Selected topics of interest in the field of Criminology and Criminal Justice will be covered.

SG91	John Conroy, Michael Yu	Seats (Total: 24)
	W 12:30pm - 3:00pm	BLD3 3220
	Restrictions: Limit to CCJS students at Shady Grove	

CCJS418J **Seminar in Criminology and Criminal Justice; Immigration and Crime**

Credits: 3

Grading Method: Regular, Pass-Fail, Audit

Selected topics of interest in the field of Criminology and Criminal Justice will be covered.

SG91	Alan Drew	Seats (Total: 30)
	W 9:30am - 12:00pm	BLD3 2225
	Restriction: Limit to CCJS students at Shady Grove.	

CCJS418L **Seminar in Criminology and Criminal Justice; Crime Over the Life Course**

(Perm req)

Credits: 3

Grading Method: Regular, Pass-Fail, Audit

Selected topics of interest in the field of Criminology and Criminal Justice will be covered.

Prerequisites: CCJS 100, CCJS 105, and CCJS 300.

0101	Bianca Bersani	Seats (Total: 50)
	TuTh 3:30pm - 4:45pm	SQH 1117

CCJS418M **Seminar in Criminology and Criminal Justice; Cross National Comparisons of Crime and Criminal Justice**

(Perm req)

Credits: 3

Grading Method: Regular, Pass-Fail, Audit

Selected topics of interest in the field of Criminology and Criminal Justice will be covered.

Prerequisites: CCJS100, CCJS105, and CCJS300.

0101	Bo Jiang	Seats (Total: 50)
	W 4:00pm - 6:30pm	TYD 2106

CCJS418N **Seminar in Criminology and Criminal Justice; Causes & Consequences of Terrorism**

(Perm req)

Credits: 3

Grading Method: Regular, Pass-Fail, Audit

Selected topics of interest in the field of Criminology and Criminal Justice will be covered.

Prerequisites: CCJS 100, CCJS 105, and CCJS 300.

0101	Gary LaFree	Seats (Total: 50)
	M 4:00pm - 6:30pm	PHY 4221

CCJS418P **Seminar in Criminology and Criminal Justice; Marijuana, Law and Society**

(Perm req)

Credits: 3

Grading Method: Regular, Pass-Fail, Audit

Selected topics of interest in the field of Criminology and Criminal Justice will be covered.

Prerequisites: CCJS100 and CCJS105.

0101	Alan Lehman TuTh 2:00pm - 3:15pm	Seats (Total: 50) TWS 0310

CCJS444 **Advanced Law Enforcement Administration**

(Perm req)

Credits: 3

Grading Method: Regular, Pass-Fail, Audit

Prerequisite: CCJS100 and CCJS340.

The structuring of manpower, material, and systems to accomplish the major goals of social control. Personnel and systems management. Political controls and limitations on authority and jurisdiction.

0101	Russell Hamill Th 5:00pm - 7:30pm	Seats (Total: 50) SKN 0104

CCJS450 **Advanced Juvenile Delinquency**

(Perm req)

Credits: 3

Grading Method: Regular, Pass-Fail, Audit

Prerequisite: CCJS105 and CCJS300. Credit only granted for: CCJS350 or CCJS450.

Examination of juvenile delinquency in the United States. Nature and extent of juvenile delinquency, historical approaches, sociological and criminological theories and research, social contexts including the institutions of families, schools, and peers, and social responses. Prevention, punishment, and treatment programs, both within and outside of the juvenile justice and criminal justice systems.

0101	Jessica Miller MWF 11:00am - 11:50am	Seats (Total: 50) SQH 1117
0301	Justine Madoo TuTh 11:00am - 12:15pm	Seats (Total: 50) TYD 0117

SG91	Carlotta Woodward M 12:30pm - 1:45pm Class time/details on ELMs *Restricted to CCJS students at Shady Grove*	Seats (Total: 40) BLD3 2226 ONLINE

CCJS451 **Crime and Delinquency Prevention**

(Perm req)

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Prerequisite: CCJS105 and CCJS300.

Methods and programs in prevention of crime and delinquency.

0101	Kyle Dorsey TuTh 9:30am - 10:45am	Seats (Total: 50) SQH 1119

CCJS454 **Contemporary Criminological Theory**

(Perm req)

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Prerequisite: CCJS300 and CCJS105.

Examination of the main theoretical accounts that explain the underlying causes of criminal behaviors. Explore how individual choices, socialization experiences, biological factors and social structure affect criminal behaviors.

0101	Wade Jacobsen MWF 10:00am - 10:50am	Seats (Total: 50) ASY 2309
0201	Maria Velez MWF 1:00pm - 1:50pm	Seats (Total: 50) SQH 1117

CCJS458M **Special Topics in Study Abroad IV; Social History of the Mafia**

Credits: 1-6 Grading Method: Regular, Pass-Fail, Audit

Special topics course taken as part of an approved study abroad program.

Contact department for information to register for this course.

CCJS461 **Psychology of Criminal Behavior**

(Perm req)

Credits: 3

Grading Method: Regular, Pass-Fail, Audit

Prerequisite: CCJS105 and CCJS300.

Biological, environmental, and personality factors which influence criminal behaviors. Biophysiology and crime, stress and crime, maladjustment patterns, psychoses, personality disorders, aggression and violent crime, sex-motivated crime and sexual deviations, alcohol and drug abuse, and criminal behavior.

Contact department for information to register for this course.

CCJS498C **Selected Topics in Criminology and Criminal Justice; Police and Campus Interaction**

(Perm req)

Credits: 3

Grading Method: Regular, Pass-Fail, Audit

Topics of special interest to advanced undergraduates in criminology and criminal justice. Offered in response to student request and faculty interest.

0101	Gary LaFree, Nicole Jackson	Seats (Total: 32)
	MW 3:30pm - 4:45pm	JMZ 0125

CCJS498D **Selected Topics in Criminology and Criminal Justice; Crisis Management and Leadership for Public Safety**

Credits: 3

Grading Method: Regular, Pass-Fail, Audit

Topics of special interest to advanced undergraduates in criminology and criminal justice. Offered in response to student request and faculty interest.

SG91	Charles Jordan	Seats (Total: 30)
	Th 11:00am - 1:30pm	BLD3 2225
	Restrictions: Limit to CCJS students at Shady Grove	

CCJS498F **Selected Topics in Criminology and Criminal Justice; Recruitment and Retention of Public Safety Professionals**

Credits: 3

Grading Method: Regular, Pass-Fail, Audit

Topics of special interest to advanced undergraduates in criminology and criminal justice. Offered in response to student request and faculty interest.

SG91	Shawn Eastman	Seats (Total: 30)
	W 3:30pm - 6:00pm	BLD3 2225
	Restrictions: Limit to CCJS students at Shady Grove	

CCJS498M **Selected Topics in Criminology and Criminal Justice; Crime Mapping**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Topics of special interest to advanced undergraduates in criminology and criminal justice. Offered in response to student request and faculty interest.

ESG1	Marcus Boyd M 2:00pm - 4:30pm *Restricted to Information Science majors at Shady Grove*	Seats (Total: 15) BLD3 2219
SG91	Marcus Boyd M 2:00pm - 4:30pm *Restricted to CCJS students at Shady Grove.*	Seats (Total: 15) Location: TBA

CCJS498O **Selected Topics in Criminology and Criminal Justice; Crossover Youth: The Intersection of the Child Welfare and Criminal Justice Systems**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Topics of special interest to advanced undergraduates in criminology and criminal justice. Offered in response to student request and faculty interest.

SG91	Louis Morlier W 6:30pm - 9:00pm *Restrictions: Limit to CCJS students at Shady Grove*	Seats (Total: 30) BLD3 2226

CCJS498Q **Selected Topics in Criminology and Criminal Justice; Navigating Your Future: Transforming Your Degree into a Career**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Topics of special interest to advanced undergraduates in criminology and criminal justice. Offered in response to student request and faculty interest.

SG91	Richard Harris W 12:30pm - 1:45pm Class time/details on ELMs *This course is restricted to CCJS students at Shady Grove.*	Seats (Total: 40) BLD3 2225 ONLINE

CCJS498V **Selected Topics in Criminology and Criminal Justice; Rules of Engagement: Evidence in Criminal Trials**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Topics of special interest to advanced undergraduates in criminology and criminal justice. Offered in response to student request and faculty interest.

SG91	James Trusty	Seats (Total: 30)
	Tu 6:30pm - 9:00pm	BLD3 4226
	Restrictions: Limit to CCJS students at Shady Grove	

CCJS604 **Policy Analysis Project**

(Perm req)

Credits: 3 Grading Method: Regular, Sat-Fail

An application of statistical and conceptual tools to criminal justice data in the student's area of concentration, resulting in a paper reporting the conceptualization, analytic methods and results. The topic of the independent study will be chosen through individual consultation with the instructor.

Contact department for information to register for this course.

CCJS605 **Program Evaluation for Criminal Justice**

Credits: 3 Grading Method: Regular, Sat-Fail

Credit only granted for: CCJS605 or CCJS609. Formerly: CCJS609.

Designing, implementing and evaluating programs in criminal justice. Topics include diagnosing program needs, planning and tailoring evaluation programs, program monitoring, assessing program impact, program efficiency, and the social context of evaluation.

Contact department for information to register for this course.

CCJS610 **Research Methods in Criminal Justice and Criminology**

Credits: 3 Grading Method: Regular, Audit, Sat-Fail

Formerly: CRIM610.

Examination of special research problems and techniques.

0101	Min Xie	Seats (Total: 23)
	Tu 4:00pm - 6:45pm	LEF 2165E

CCJS611 **Statistical Tools for Criminal Justice**

Credits: 3 Grading Method: Regular, Sat-Fail

An introduction to essential statistical concepts for analyzing crime and evaluating criminal justice policies. Interpreting crime trends and correlations, risk and conditional probability analysis for repeat offenders and hot spots of crime, time series analysis, experimental statistics, effect sizes, statistical power and significance.

Contact department for information to register for this course.

CCJS621 **General Linear Models in Criminal Justice Research**

Credits: 3 Grading Method: Regular, Audit, Sat-Fail

Prerequisite: CCJS620. Credit only granted for: CCJS498F or CCJS621. Formerly: CCJS498F.

An in-depth exploration of applied linear regression analysis. Covers characteristics of estimates, such as unbiasedness and efficiency. Encourages fluency with the theoretical issues involved in the basic linear regression using simple algebra, familiarity with the general model using matrix algebra, and fluency with the computer application of multivariate regressions and the probit/logit models.

0101	Laura Dugan	Seats (Total: 25)
	M 4:00pm - 6:45pm	SQH 1123

CCJS651 **Seminar in Criminology**

Credits: 3 Grading Method: Regular, Audit, Sat-Fail

Formerly: CRIM651.

Analysis of significant recent issues in Criminology.

0101	Jean McGloin	Seats (Total: 25)
	W 3:00pm - 5:45pm	LEF 2165E

CCJS678D **Advanced Topics in Criminology and Criminal Justice**

Credits: 3 Grading Method: Regular, Audit, Sat-Fail

An analysis of contemporary issues in criminology and criminal justice with special emphasis on research and theory developments.

Contact department for information to register for this course.

CCJS678E **Advanced Topics in Criminology and Criminal Justice**

Credits: 3 Grading Method: Regular, Audit, Sat-Fail

An analysis of contemporary issues in criminology and criminal justice with special emphasis on research and theory developments.

Contact department for information to register for this course.

CCJS699 **Special Criminological Problems**

Credits: 1-3 Grading Method: Regular, Audit, Sat-Fail

Supervised study of a selected problem in the field of criminal justice.

Contact department for information to register for this course.

CCJS699Q **Special Criminological Problems; Punishment & Inequality**

Credits: 3 Grading Method: Regular, Audit, Sat-Fail

Supervised study of a selected problem in the field of criminal justice.

0101	Wade Jacobsen	Seats (Total: 20)
	W 4:00pm - 6:45pm	LEF 2207

CCJS700 **Advanced Research Methods in Criminology and Criminal Justice**

Credits: 3 Grading Method: Regular, Sat-Fail

Prerequisite: CCJS610.

An in-depth inventory of the methods of criminological research. It considers the philosophy of science and research ethics; discusses sampling, measurement and methods of data collection, including survey, experimental, evaluation, and qualitative research.

0101	Lauren Porter	Seats (Total: 20)
	Th 4:00pm - 6:45pm	LEF 2165E

CCJS799 **Master's Thesis Research**

(Perm req)

Credits: 1-6 Grading Method: Sat-Fail

Contact department for information to register for this course.

CCJS898 **Pre-Candidacy Research**

(Perm req)

Credits: 1-8 Grading Method: Regular, Sat-Fail

Contact department for information to register for this course.

CCJS899 **Doctoral Dissertation Research**

(Perm req)

Credits: 6 Grading Method: Sat-Fail

Doctoral dissertation research in criminal justice and criminology.

Contact department for information to register for this course.

CHBE Chemical and Biomolecular Engineering Spring 2020

CHBE101 **Introduction to Chemical and Biomolecular Engineering**

(Perm req)

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Prerequisite: CHEM135; or students who have taken courses with comparable content may contact the department. Corequisite: MATH141. Restriction: Must be in Engineering: Chemical program; or permission of ENGR-Chemical & Biomolecular Engineering department. Credit only granted for: CHBE101 or ENCH215. Formerly: ENCH215.

Introduction to methods of chemical engineering calculations and analysis. Stoichiometric relations, material and energy balances, and behavior of gases, vapors, liquids and solids. Analytical and computer methods.

0101	Taylor Woehl	Seats (Total: 120)	
	MWF 12:00pm - 12:50pm	JMP 3201	
	F 1:00pm - 1:50pm	JMP 3201	Discussion

CHBE302 **Chemical and Biomolecular Engineering Thermodynamics II**

(Perm req)

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Prerequisite: CHBE301. Corequisite: CHBE250. Restriction: Must be in a major within ENGR-Chemical & Biomolecular Engineering department. Credit only granted for: CHBE302 or ENCH400. Formerly: ENCH400.

Contemporary trends in chemical engineering thermodynamics that bridge the gap between fundamentals and applications. Thermodynamic analysis of non-ideal and structured systems; such as complex fluids, strongly fluctuating and nanoscale systems, dissipative systems, biosystems, and systems under extreme conditions.

0101	Jeffery Klauda TuTh 9:30am - 10:45am F 10:00am - 10:50am	Seats (Total: 85) EGR 1202 EGR 1202	 Discussion

CHBE333 **Chemical Engineering Seminar**

(Perm req)

Credits: 1 Grading Method: Regular, Pass-Fail, Audit

Restriction: Junior standing; and must be in a major within ENGR-Chemical & Biomolecular Engineering department; and permission of ENGR-Chemical & Biomolecular Engineering department. Credit only granted for: CHBE333 or ENCH333. Formerly: ENCH333.

To develop oral communication skills through a series of class presentations of current chemical engineering topics.

0101	Amy Karlsson, Ganesh Sriram W 2:00pm - 2:50pm	Seats (Total: 15) AJC 2119
0102	Amy Karlsson, Ganesh Sriram W 11:00am - 11:50am	Seats (Total: 15) AJC 2119

CHBE369 **Teaching Experiences in Chemical Engineering**

(Perm req)

Credits: 1-2 Grading Method: Regular, Pass-Fail, Audit

Students will obtain pedagogical experience by assisting with the teaching of undergraduate courses in Chemical and Biomolecular Engineering.

Contact department for information to register for this course.

CHBE422 **Chemical and Biomolecular Engineering Transport Phenomena I**

(Perm req)

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Prerequisite: Minimum grade of C- in CHBE101, CHBE250, MATH241, and MATH246. Restriction: Must be in a major within the ENGR-Chemical & Biomolecular Engineering department; and permission of ENGR-Chemical & Biomolecular Engineering department. Credit only granted for: CHBE422 or ENCH422. Formerly: ENCH422.

Principals of fluid dynamics as applied to model development and process design. Mass, momentum and energy conservation. Statics and surface tension. Equation of Continuity and Navier-Stokes Equation with application to laminar flow. Dimensional analysis. Macroscopic balances, Bernoulli Equation and friction factors with application to turbulent flow.

0101	Paul Albertus	Seats (Total: 30)	
	TuTh 12:30pm - 1:45pm M 10:00am - 10:50am	ANS 0402 CHE 2118	Discussion

CHBE424 **Chemical and Biomolecular Engineering Transport Phenomena II**

(Perm req)

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Prerequisite: CHBE422. Corequisite: CHBE302. Restriction: Must be in Engineering: Chemical program; and permission of ENGR-Chemical & Biomolecular Engineering department. Credit only granted for: CHBE424 or ENCH424. Formerly: ENCH424.

Principles of mass and heat transfer as applied to model development and process design. Species continuity equation with application to diffusion, and convection in laminar flow. Macroscopic balances and mass transfer coefficients with application to turbulent flow. Microscopic equation of energy with application to heat conduction, and convection in laminar flow. Macroscopic energy balance and heat transfer coefficients with application to turbulent flow. Heat exchanger design.

0101	Deborah Goldberg	Seats (Total: 120)	
	TuTh 2:00pm - 3:15pm F 11:00am - 11:50am	CHE 2110 CHE 2110	Discussion

CHBE426 **Chemical and Biomolecular Separation Processes**

(Perm req)

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Corequisite: CHBE302; and CHBE424. Restriction: Must be in Engineering: Chemical program; and permission of ENGR-Chemical & Biomolecular Engineering department. Credit only granted for: CHBE426 or ENCH426. Formerly: ENCH426.

Separation by stages operations. Rate dependent separation processes. Design application in distillation, gas absorption, liquid extraction, drying, adsorption and ion exhange.

0101	Amy Karlsson	Seats (Total: 50)	
	MWF 9:00am - 9:50am W 1:00pm - 1:50pm	CHE 2110 CHE 2110	Discussion
0102	Amy Karlsson	Seats (Total: 50)	
	MWF 9:00am - 9:50am W 10:00am - 10:50am	CHE 2110 CHE 2108	Discussion

CHBE440 **Chemical Kinetics and Reactor Design**

(Perm req)

Credits: 3

Grading Method: Regular, Pass-Fail, Audit

Prerequisite: Minimum grade of C- in CHBE301, MATH241, and MATH246. Restriction: Must be in Engineering: Chemical program; and permission of ENGR-Chemical & Biomolecular Engineering department. Credit only granted for: CHBE440 or ENCH440. Formerly: ENCH440.

Fundamentals of chemical reaction kinetics and their application to the design and operation of chemical reactors. Reaction rate theory, homogeneous reactions and catalysis electrochemical reactions. Catalytic reactor design.

0101	Chen Zhang TuTh 3:30pm - 4:45pm M 11:00am - 11:50am	Seats (Total: 40) EGR 1108 CHE 2118	Discussion

CHBE446 **Process Engineering Economics and Design II**

(Perm req)

Credits: 3

Grading Method: Regular, Pass-Fail, Audit

Prerequisite: CHBE442 and CHBE444. Restriction: Must be in a major within the ENGR-Chemical & Biomolecular Engineering department; and permission of ENGR-Chemical & Biomolecular Engineering department. Credit only granted for: CHBE446 or ENCH446. Formerly: ENCH446.

Application of chemical engineering principles for the design of chemical processing equipment. Representative problems in the design of chemical plants will be the focus of this capstone design class. Comprehensive reports are required.

0102	Nam Sun Wang F 11:00am - 1:30pm	Seats (Total: 36) AJC 2119
0103	Nam Sun Wang M 2:00pm - 4:30pm	Seats (Total: 60) CHM 2201

CHBE457 **Design and Processing of Polymers for Biomedical Devices**

(Perm req)

Credits: 3

Grading Method: Regular, Pass-Fail

Prerequisite: MATH246; and CHEM231; and (CHBE301, ENMA461, or BIOE232). Recommended: Knowledge of basic fluid dynamics: CHBE422/BIOE331 or equivalent. Restriction: Permission of ENGR-Chemical & Biomolecular Engineering department. Credit only granted for: BIOE453, CHBE457, or ENMA425.

An overview of the design and processing of polymers used in medical applications. Following a discussion of the physical and mechanical properties of polymers, important classes of polymeric biomaterials will be surveyed, discussing material synthesis, processing techniques and equipment, as well as properties and performance in biomedical applications. Topics will include silicone elastomers, hydrogels, ultra-high molecular weight polyethylene, polyurethanes, polyureas, polyesters, degradable and resorbable polymeric biomaterial designs used in surgery and drug delivery, polymers for ophthalmologic and orthopedic applications, and biopolymers such as silks and collagen. Finally, the design of major industrial polymer processing equipment will be covered, and the fundamentals of extrusion, calendering, coating, fiber spinning, film blowing, and injection molding processes will be presented.

0101	Peter Kofinas	Seats (Total: 30)
	MW 4:00pm - 5:15pm	AJC 2132

CHBE468 **Research**

(Perm req)

Credits: 1-3 Grading Method: Regular, Pass-Fail

Investigation of a research project under the direction of a faculty member. Comprehensive reports are required.

Contact department for information to register for this course.

CHBE469 **Special Projects**

(Perm req)

Credits: 1-3 Grading Method: Regular, Pass-Fail, Audit

Special project under the direction of a faculty member. Comprehensive reports are required.

Contact department for information to register for this course.

CHBE472 **Control of Air Pollution Sources**

(Perm req)

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Restriction: Permission of ENGR-Chemical & Biomolecular Engineering department.

Sources and effects of air pollutants, regulatory trends, atmospheric dispersion models, fundamentals of two-phase flow as applied to air pollution and air pollution control systems, design of systems for control of gases and particulate matter.

0101	Akua Asa-Awuku	Seats (Total: 40)
	TuTh 12:30pm - 1:45pm	ESJ 2309

CHBE473 **Electrochemical Energy Engineering**

(Perm req)

Credits: 3

Grading Method: Regular, Pass-Fail, Audit

Restriction: Permission of ENGR-Chemical & Biomolecular Engineering department. Credit only granted for: ENCH468K or CHBE473. Formerly: ENCH468K.

The lecture will start from the basic electrochemical thermodynamics and kinetics, with emphasis on electrochemical techniques, fundamental principle and performance of batteries, and supercapacitors.

0101	Chunsheng Wang	Seats (Total: 35)
	MW 11:00am - 12:15pm	JMP 2121

CHBE474 **Biopharmaceutical Process Development and Manufacturing**

(Perm req)

Credits: 3

Grading Method: Regular, Pass-Fail, Audit

Prerequisite: BIOE120; and permission of instructor. Restriction: Permission of ENGR-Chemical & Biomolecular Engineering department. Credit only granted for: CHBE474, BIOE489T, or ENCH648D.

Covers the fundamental steps involved in process development and manufacturing of biopharmaceuticals. An overview of different classes of biopharmaceuticals as well as manufacturing requirements for clinical development and regulatory approval will be provided. In depth coverage of manufacturing steps including cell culture, purification and formulation as well as drug product manufacturing, analysis and stability will be covered. Scientific literature will be used to highlight current challenges and novel solutions in each step of the manufacturing process. Scale up considerations, GMP requirements and process economics will also be introduced.

0101	Deborah Goldberg	Seats (Total: 28)
	MW 12:30pm - 1:45pm	AJC 2119

CHBE477 **Mesoscopic and Nanoscale Thermodynamics**

(Perm req)

Credits: 3

Grading Method: Regular, Pass-Fail, Audit

Prerequisite: A prior course in classical thermodynamics. Restriction: Must be in a major within the ENGR-Chemical & Biomolecular Engineering department; and permission of ENGR-Chemical & Biomolecular Engineering department. Credit only granted for: CHBE477 or ENCH468Q. Formerly: ENCH468Q.

Interdisciplinary course primarily for graduate and senior undergraduate students from engineering or science departments. New emerging technologies deal with bio-membrane and gene engineering, microreactor chemistry and microcapsule drug delivery, micro-fluids and porous media, nanoparticles and nanostructures, supercritical fluid extraction and artifical organs. Engineers often design processes where classical thermodynamics may be insufficient, e.g., strongly fluctuating and nanoscale systems, or dissipative systems under conditions far away from equilibrium.

0101	Mikhail Anisimov TuTh 12:30pm - 1:45pm	Seats (Total: 38) EGR 1104

CHBE480 **Bionanotechnology: Physical Principles**

(Perm req)

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Prerequisite: BIOE120; or students who have taken courses with comparable content may contact the department. Restriction: Permission of ENGR-Chemical & Biomolecular Engineering department.

Physics at nano/micro scales. Biomolecular building blocks. Simplest biomolecular assembly: protein folding. Nanoscale intermolecular interactions important for biology. Protein-ligand binding. Protein higher-order assembly: filaments, networks. Protein filaments and motility. DNA, RNA and their assembly assisted by proteins. Viral capsid assembly. Lipid assembly into micelles, bilayers. Lipid-protein co-assembly in membranes. Lipid and polymer structures useful in medicine. Targeted delivery of drugs, genes by nano/micro structures. Cellular assembly in the eye, in insect wings. Cellular assembly at surfaces: gecko feet, duck feathers. Cellular assembly in the presence of crystals: biomineralization.

0101	Srinivasa Raghavan TuTh 3:30pm - 4:45pm	Seats (Total: 40) CHE 2110

CHEM Chemistry Spring 2020

CHEM131 **Chemistry I - Fundamentals of General Chemistry**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

General Education: DSNL (if taken with CHEM132), DSNS (if taken with CHEM132)

Prerequisite: Must have math eligibility of MATH120 or higher. Corequisite: CHEM132. Recommended: For Science majors. Credit only granted for: CHEM103, CHEM131, CHEM135, CHEM153 or CHEM146. Formerly: CHEM103.

An overview of the Periodic Table, inorganic substances, ionic and covalent bonding, bulk properties of materials, chemical equilibrium, and quantitative chemistry. CHEM131 is the first course in a four-semester sequence for students majoring in the sciences, other than Chemistry and Biochemistry majors.

1115	Christiana Guest TuTh 8:00am - 9:15am M 12:00pm - 12:50pm	Seats (Total: 30) CHM 1407 CHM 0119	 Discussion

1116	Christiana Guest TuTh 8:00am - 9:15am M 1:00pm - 1:50pm	Seats (Total: 30) CHM 1407 CHM 0119	Discussion
1117	Christiana Guest TuTh 8:00am - 9:15am M 2:00pm - 2:50pm	Seats (Total: 30) CHM 1407 CHM 0119	Discussion
1135	Christiana Guest TuTh 8:00am - 9:15am W 12:00pm - 12:50pm	Seats (Total: 30) CHM 1407 CHM 0119	Discussion
1136	Christiana Guest TuTh 8:00am - 9:15am W 1:00pm - 1:50pm	Seats (Total: 30) CHM 1407 CHM 0119	Discussion
1138	Christiana Guest TuTh 8:00am - 9:15am W 2:00pm - 2:50pm	Seats (Total: 30) CHM 1407 CHM 0119	Discussion
1214	Alice Mignerey TuTh 11:00am - 12:15pm M 11:00am - 11:50am	Seats (Total: 30) CHM 1407 CHM 0128	Discussion
1215	Alice Mignerey TuTh 11:00am - 12:15pm M 12:00pm - 12:50pm	Seats (Total: 30) CHM 1407 CHM 0128	Discussion
1218	Alice Mignerey TuTh 11:00am - 12:15pm M 3:00pm - 3:50pm	Seats (Total: 30) CHM 1407 CHM 0128	Discussion
1234	Alice Mignerey TuTh 11:00am - 12:15pm W 11:00am - 11:50am	Seats (Total: 30) CHM 1407 CHM 0128	Discussion
1235	Alice Mignerey TuTh 11:00am - 12:15pm W 12:00pm - 12:50pm	Seats (Total: 30) CHM 1407 CHM 0128	Discussion

1238	Alice Mignerey TuTh 11:00am - 12:15pm W 3:00pm - 3:50pm	Seats (Total: 30) CHM 1407 CHM 0128	Discussion
1314	Amanda Schech TuTh 12:30pm - 1:45pm M 11:00am - 11:50am	Seats (Total: 30) CHM 1407 CHM 0127	Discussion
1315	Amanda Schech TuTh 12:30pm - 1:45pm M 12:00pm - 12:50pm	Seats (Total: 30) CHM 1407 CHM 0127	Discussion
1317	Amanda Schech TuTh 12:30pm - 1:45pm M 2:00pm - 2:50pm	Seats (Total: 30) CHM 1407 CHM 0127	Discussion
1334	Amanda Schech TuTh 12:30pm - 1:45pm W 11:00am - 11:50am	Seats (Total: 30) CHM 1407 CHM 0127	Discussion
1335	Amanda Schech TuTh 12:30pm - 1:45pm W 12:00pm - 12:50pm	Seats (Total: 30) CHM 1407 CHM 0127	Discussion
1337	Amanda Schech TuTh 12:30pm - 1:45pm W 2:00pm - 2:50pm	Seats (Total: 30) CHM 1407 CHM 0127	Discussion
SES1	Robert Richman M 6:30pm - 9:30pm W 6:30pm - 7:20pm *Restricted to students in the SIE Program. Click here for more information.*	Seats (Total: 34) CHM 0119 CHM 0127	Discussion

CHEM132 **General Chemistry I Laboratory**

Credits: 1 Grading Method: Regular, Pass-Fail

Prerequisite: Must have math eligibility of MATH120 or higher. Corequisite: CHEM131. Credit only granted for: CHEM103, CHEM132, CHEM136, CHEM143, CHEM147 or CHEM177. Formerly: CHEM103.

Introduction to the quantification of chemical substances, including the concept of the mole and chemical stoichiometry. Additional work involves the synthesis of ionic substances and their qualitative characterization. Must be taken concurrently with CHEM131.

Laboratory sessions will begin after the first lecture. Students must pay a $40.00 lab materials fee.

1111	Christiana Guest M 9:00am - 11:50am	Seats (Total: 24) ESJ 1312	Lab
1121	Christiana Guest M 12:00pm - 2:50pm	Seats (Total: 24) ESJ 1312	Lab
1122	Christiana Guest M 12:00pm - 2:50pm	Seats (Total: 24) ESJ 1316	Lab
1131	Christiana Guest M 3:00pm - 5:50pm	Seats (Total: 24) ESJ 1312	Lab
1132	Christiana Guest M 3:00pm - 5:50pm	Seats (Total: 24) ESJ 1316	Lab
1221	Christiana Guest Tu 12:30pm - 3:20pm	Seats (Total: 24) ESJ 1312	Lab
1222	Christiana Guest Tu 12:30pm - 3:20pm	Seats (Total: 24) ESJ 1316	Lab
1231	Christiana Guest Tu 3:30pm - 6:20pm	Seats (Total: 24) ESJ 1312	Lab
1232	Christiana Guest Tu 3:30pm - 6:20pm	Seats (Total: 24) ESJ 1316	Lab
1321	Christiana Guest W 12:00pm - 2:50pm	Seats (Total: 24) ESJ 1312	Lab
1331	Christiana Guest W 3:00pm - 5:50pm	Seats (Total: 24) ESJ 1312	Lab
1332	Christiana Guest W 3:00pm - 5:50pm	Seats (Total: 24) ESJ 1316	Lab

1411	Christiana Guest Th 9:30am - 12:20pm	Seats (Total: 24) ESJ 1312	Lab
1412	Christiana Guest Th 9:30am - 12:20pm	Seats (Total: 24) ESJ 1316	Lab
1421	Christiana Guest Th 12:30pm - 3:20pm	Seats (Total: 24) ESJ 1312	Lab
1431	Christiana Guest Th 3:30pm - 6:20pm	Seats (Total: 24) ESJ 1312	Lab
1432	Christiana Guest Th 3:30pm - 6:20pm	Seats (Total: 24) ESJ 1316	Lab
1511	Christiana Guest F 9:00am - 11:50am	Seats (Total: 24) ESJ 1312	Lab
1521	Christiana Guest F 12:00pm - 2:50pm	Seats (Total: 24) ESJ 1312	Lab
1522	Christiana Guest F 12:00pm - 2:50pm	Seats (Total: 24) ESJ 1316	Lab
1531	Christiana Guest F 3:00pm - 5:50pm	Seats (Total: 24) ESJ 1312	Lab
1532	Christiana Guest F 3:00pm - 5:50pm	Seats (Total: 24) ESJ 1316	Lab
SES1	Christiana Guest W 7:30pm - 10:20pm	Seats (Total: 24) ESJ 1330	Lab
	Restricted to students in the SIE Program. Click here for more information.		

CHEM134 **Chemical Principles for Engineering**

Credits: 1 Grading Method: Regular, Pass-Fail

Prerequisite: Minimum grade of C- in CHEM131; or minimum grade of C- in CHEM146. Credit only granted for: CHEM 134 or CHEM 135.

Basic chemistry for engineering students. Introduction to organic structures and polymers, gas laws, liquids, solids, phase changes, chemical kinetics and electrochemistry.

0101	Earle Stone Tu 3:30pm - 4:20pm	Seats (Total: 155) ESJ 2208	

CHEM135 **General Chemistry for Engineers**

Credits: 3 Grading Method: Regular, Pass-Fail

Prerequisite: Must have math eligibility of MATH120 or higher. Credit only granted for: CHEM103, CHEM113, CHEM131, CHEM135, or CHEM146.

The nature and composition of matter, solutions, chemical reactions, equilibria, and electrochemistry, with applications to various fields of engineering.

3125	Elizabeth Griffith MWF 3:00pm - 3:50pm Tu 12:30pm - 1:20pm	Seats (Total: 30) CHM 1407 CHM 0119	Discussion
3127	Elizabeth Griffith MWF 3:00pm - 3:50pm Tu 2:00pm - 2:50pm	Seats (Total: 30) CHM 1407 CHM 0119	Discussion
3128	Elizabeth Griffith MWF 3:00pm - 3:50pm Tu 3:30pm - 4:20pm	Seats (Total: 30) CHM 1407 CHM 0119	Discussion
3145	Elizabeth Griffith MWF 3:00pm - 3:50pm Th 11:00am - 11:50am	Seats (Total: 30) CHM 1407 CHM 0115	Discussion
3147	Elizabeth Griffith MWF 3:00pm - 3:50pm Th 2:00pm - 2:50pm	Seats (Total: 30) CHM 1407 CHM 0115	Discussion
3148	Elizabeth Griffith MWF 3:00pm - 3:50pm Th 3:30pm - 4:20pm	Seats (Total: 30) CHM 1407 CHM 0115	Discussion

CHEM136 **General Chemistry Laboratory for Engineers**

Credits: 1

Grading Method: Regular, Pass-Fail

Prerequisite: Must have completed or be concurrently enrolled in CHEM135 and must have math eligibility of MATH120 or higher. Restriction: Must be in a major in ENGR-A. James Clark School of Engineering.

A laboratory course for engineering majors intending to take CHEM231 and CHEM232.

Students must pay a $40.00 lab materials fee.

1135	Natalia White M 3:00pm - 5:50pm	Seats (Total: 24) ESJ 1330	Lab
1225	Natalia White Tu 12:30pm - 3:20pm	Seats (Total: 24) ESJ 1330	Lab

CHEM231 **Organic Chemistry I**

Credits: 3

Grading Method: Regular, Pass-Fail, Audit

Prerequisite: CHEM131, CHEM135, or CHEM146; and (CHEM132, CHEM136, CHEM147, or CHEM177); and a grade of C- or better in the prerequisites is required of College of Computer, Mathematical, and Natural Sciences majors and recommended for all students. Corequisite: CHEM232. Credit only granted for: CHEM104, CHEM231, CHEM233 or CHEM237. Formerly: CHEM233.

The chemistry of carbon: aliphatic compounds, aromatic compounds, stereochemistry, arenes, halides, alcohols, esters and spectroscopy.

5116	Bonnie Dixon TuTh 2:00pm - 3:15pm M 1:00pm - 1:50pm	Seats (Total: 32) CHM 1407 CHM 0115	Discussion
5117	Bonnie Dixon TuTh 2:00pm - 3:15pm M 2:00pm - 2:50pm	Seats (Total: 32) CHM 1407 CHM 0115	Discussion
5118	Bonnie Dixon TuTh 2:00pm - 3:15pm M 3:00pm - 3:50pm	Seats (Total: 32) CHM 1407 CHM 0115	Discussion

5136	Bonnie Dixon TuTh 2:00pm - 3:15pm W 1:00pm - 1:50pm	Seats (Total: 32) CHM 1407 CHM 0115	Discussion
5137	Bonnie Dixon TuTh 2:00pm - 3:15pm W 2:00pm - 2:50pm	Seats (Total: 32) CHM 1407 CHM 0115	Discussion
5138	Bonnie Dixon TuTh 2:00pm - 3:15pm W 3:00pm - 3:50pm	Seats (Total: 32) CHM 1407 CHM 0115	Discussion
5221	Monique Koppel MWF 2:00pm - 2:50pm Tu 8:00am - 8:50am	Seats (Total: 32) ESJ 0224 CHM 0119	Discussion
5222	Monique Koppel MWF 2:00pm - 2:50pm Tu 9:30am - 10:20am	Seats (Total: 32) ESJ 0224 CHM 0119	Discussion
5225	Monique Koppel MWF 2:00pm - 2:50pm Tu 11:00am - 11:50am	Seats (Total: 32) ESJ 0224 CHM 0119	Discussion
5241	Monique Koppel MWF 2:00pm - 2:50pm Th 8:00am - 8:50am	Seats (Total: 32) ESJ 0224 CHM 0119	Discussion
5242	Monique Koppel MWF 2:00pm - 2:50pm Th 9:30am - 10:20am	Seats (Total: 32) ESJ 0224 CHM 0119	Discussion
5245	Monique Koppel MWF 2:00pm - 2:50pm Th 12:30pm - 1:20pm	Seats (Total: 32) ESJ 0224 CHM 0119	Discussion
5322	Lenea Stocker MWF 10:00am - 10:50am Tu 12:30pm - 1:20pm	Seats (Total: 32) CHM 1407 CHM 0122	Discussion

5325	Lenea Stocker MWF 10:00am - 10:50am Tu 2:00pm - 2:50pm	Seats (Total: 32) CHM 1407 CHM 0122	Discussion
5328	Lenea Stocker MWF 10:00am - 10:50am Tu 3:30pm - 4:20pm	Seats (Total: 32) CHM 1407 CHM 0122	Discussion
5342	Lenea Stocker MWF 10:00am - 10:50am Th 12:30pm - 1:20pm	Seats (Total: 32) CHM 1407 CHM 0127	Discussion
5345	Lenea Stocker MWF 10:00am - 10:50am Th 2:00pm - 2:50pm	Seats (Total: 32) CHM 1407 CHM 0127	Discussion
5348	Lenea Stocker MWF 10:00am - 10:50am Th 3:30pm - 4:20pm	Seats (Total: 32) CHM 1407 CHM 0127	Discussion
5421	Lenea Stocker MWF 1:00pm - 1:50pm Tu 12:30pm - 1:20pm	Seats (Total: 32) CHM 1407 CHM 2201	Discussion
5427	Lenea Stocker MWF 1:00pm - 1:50pm Tu 2:00pm - 2:50pm	Seats (Total: 32) CHM 1407 CHM 2201	Discussion
5428	Lenea Stocker MWF 1:00pm - 1:50pm Tu 3:30pm - 4:20pm	Seats (Total: 32) CHM 1407 CHM 2201	Discussion
5441	Lenea Stocker MWF 1:00pm - 1:50pm Th 12:30pm - 1:20pm	Seats (Total: 32) CHM 1407 CHM 2201	Discussion
5447	Lenea Stocker MWF 1:00pm - 1:50pm Th 2:00pm - 2:50pm	Seats (Total: 32) CHM 1407 CHM 2201	Discussion

5448	Lenea Stocker MWF 1:00pm - 1:50pm Th 3:30pm - 4:20pm	Seats (Total: 32) CHM 1407 CHM 2201	Discussion
5511	Lee Friedman TuTh 8:00am - 9:15am M 8:00am - 8:50am	Seats (Total: 32) PHY 1412 CHM 0128	Discussion
5512	Lee Friedman TuTh 8:00am - 9:15am M 9:00am - 9:50am	Seats (Total: 32) PHY 1412 CHM 0128	Discussion
5513	Lee Friedman TuTh 8:00am - 9:15am M 10:00am - 10:50am	Seats (Total: 32) PHY 1412 CHM 0128	Discussion
5531	Lee Friedman TuTh 8:00am - 9:15am W 8:00am - 8:50am	Seats (Total: 32) PHY 1412 CHM 0128	Discussion
5532	Lee Friedman TuTh 8:00am - 9:15am W 9:00am - 9:50am	Seats (Total: 32) PHY 1412 CHM 0128	Discussion
5533	Lee Friedman TuTh 8:00am - 9:15am W 10:00am - 10:50am	Seats (Total: 32) PHY 1412 CHM 0128	Discussion
SES1	Monique Koppel M 6:30pm - 9:30pm W 6:30pm - 7:20pm	Seats (Total: 35) CHM 0115 CHM 0115	Discussion
	Restricted to students in the SIE Program. Click here for more information.		

CHEM232 **Organic Chemistry Laboratory I**

Credits: 1 Grading Method: Regular, Pass-Fail

Prerequisite: CHEM131 and CHEM132; or (CHEM135 and CHEM136); or (CHEM146 and CHEM147). And a grade of C- or better in the prerequisites is required for College of Computer, Mathematical, and Natural Sciences majors and recommended for all students. Corequisite: CHEM231. Credit only granted for: CHEM104, CHEM231, CHEM233 or CHEM237. Formerly: CHEM233.

Provides experience in developing some basic laboratory techniques, recrystallization, distillation, extraction, chromatography.

Students must pay a $40.00 lab materials fee.

5121	Monique Koppel M 12:00pm - 2:50pm	Seats (Total: 18) CHM 1330	Lab
5122	Monique Koppel M 12:00pm - 2:50pm	Seats (Total: 18) CHM 1342	Lab
5123	Monique Koppel M 12:00pm - 2:50pm	Seats (Total: 18) CHM 1346	Lab
5124	Monique Koppel M 12:00pm - 2:50pm	Seats (Total: 18) CHM 1356	Lab
5125	Monique Koppel M 12:00pm - 2:50pm	Seats (Total: 18) CHM 1360	Lab
5131	Monique Koppel M 3:00pm - 5:50pm	Seats (Total: 18) CHM 1330	Lab
5132	Monique Koppel M 3:00pm - 5:50pm	Seats (Total: 18) CHM 1342	Lab
5134	Monique Koppel M 3:00pm - 5:50pm	Seats (Total: 18) CHM 1356	Lab
5135	Monique Koppel M 3:00pm - 5:50pm	Seats (Total: 18) CHM 1360	Lab
5141	Monique Koppel M 6:00pm - 8:50pm	Seats (Total: 18) CHM 1330	Lab
5142	Monique Koppel M 6:00pm - 8:50pm	Seats (Total: 18) CHM 1342	Lab
5143	Monique Koppel M 6:00pm - 8:50pm	Seats (Total: 18) CHM 1346	Lab

5144	Monique Koppel M 6:00pm - 8:50pm	Seats (Total: 18) CHM 1356	Lab
5145	Monique Koppel M 6:00pm - 8:50pm	Seats (Total: 18) CHM 1360	Lab
5221	Monique Koppel Tu 12:30pm - 3:20pm	Seats (Total: 18) CHM 1330	Lab
5222	Monique Koppel Tu 12:30pm - 3:20pm	Seats (Total: 18) CHM 1342	Lab
5223	Monique Koppel Tu 12:30pm - 3:20pm	Seats (Total: 18) CHM 1346	Lab
5224	Monique Koppel Tu 12:30pm - 3:20pm	Seats (Total: 18) CHM 1356	Lab
5225	Monique Koppel Tu 12:30pm - 3:20pm	Seats (Total: 18) CHM 1360	Lab
5232	Monique Koppel Tu 3:30pm - 6:20pm	Seats (Total: 18) CHM 1342	Lab
5233	Monique Koppel Tu 3:30pm - 6:20pm	Seats (Total: 18) CHM 1346	Lab
5234	Monique Koppel Tu 3:30pm - 6:20pm	Seats (Total: 18) CHM 1356	Lab
5235	Monique Koppel Tu 3:30pm - 6:20pm	Seats (Total: 18) CHM 1360	Lab
5241	Monique Koppel Tu 6:30pm - 9:20pm	Seats (Total: 18) CHM 1330	Lab
5242	Monique Koppel Tu 6:30pm - 9:20pm	Seats (Total: 18) CHM 1342	Lab
5243	Monique Koppel Tu 6:30pm - 9:20pm	Seats (Total: 18) CHM 1346	Lab

5244	Monique Koppel Tu 6:30pm - 9:20pm	Seats (Total: 18) CHM 1356	Lab
5245	Monique Koppel Tu 6:30pm - 9:20pm	Seats (Total: 14) CHM 1360	Lab
5321	Monique Koppel W 12:00pm - 2:50pm	Seats (Total: 18) CHM 1330	Lab
5322	Monique Koppel W 12:00pm - 2:50pm	Seats (Total: 18) CHM 1342	Lab
5323	Monique Koppel W 12:00pm - 2:50pm	Seats (Total: 18) CHM 1346	Lab
5324	Monique Koppel W 12:00pm - 2:50pm	Seats (Total: 18) CHM 1356	Lab
5331	Monique Koppel W 3:00pm - 5:50pm	Seats (Total: 18) CHM 1330	Lab
5332	Monique Koppel W 3:00pm - 5:50pm	Seats (Total: 18) CHM 1342	Lab
5333	Monique Koppel W 3:00pm - 5:50pm	Seats (Total: 18) CHM 1346	Lab
5334	Monique Koppel W 3:00pm - 5:50pm	Seats (Total: 14) CHM 1356	Lab
5343	Monique Koppel W 6:00pm - 8:50pm	Seats (Total: 18) CHM 1346	Lab
5344	Monique Koppel W 6:00pm - 8:50pm	Seats (Total: 18) CHM 1356	Lab
5345	Monique Koppel W 6:00pm - 8:50pm	Seats (Total: 18) CHM 1360	Lab
5421	Monique Koppel Th 12:30pm - 3:20pm	Seats (Total: 18) CHM 1330	Lab

5422	Monique Koppel Th 12:30pm - 3:20pm	Seats (Total: 18) CHM 1342	Lab
5423	Monique Koppel Th 12:30pm - 3:20pm	Seats (Total: 18) CHM 1346	Lab
5424	Monique Koppel Th 12:30pm - 3:20pm	Seats (Total: 18) CHM 1356	Lab
5431	Monique Koppel Th 3:30pm - 6:20pm	Seats (Total: 18) CHM 1330	Lab
5432	Monique Koppel Th 3:30pm - 6:20pm	Seats (Total: 18) CHM 1342	Lab
5433	Monique Koppel Th 3:30pm - 6:20pm	Seats (Total: 18) CHM 1346	Lab
SES1	Monique Koppel W 7:30pm - 10:20pm *Restricted to students in the SIE Program. Click here for more information.*	Seats (Total: 18) CHM 1342	Lab
SES2	Monique Koppel W 7:30pm - 10:20pm *Restricted to students in the SIE Program. Click here for more information.*	Seats (Total: 18) CHM 1330	Lab

CHEM232S **Organic Chemistry Laboratory I**

Credits: 1 Grading Method: Regular, Pass-Fail

Prerequisite: CHEM131 and CHEM132; or (CHEM135 and CHEM136); or (CHEM146 and CHEM147). And a grade of C- or better in the prerequisites is required for College of Computer, Mathematical, and Natural Sciences majors and recommended for all students. Corequisite: CHEM231. Credit only granted for: CHEM104, CHEM231, CHEM233 or CHEM237. Formerly: CHEM233.

Provides experience in developing some basic laboratory techniques, recrystallization, distillation, extraction, chromatography.

Restricted to College Park Scholars - Life Sciences. Students must pay a $40.00 lab materials fee.

5133	Monique Koppel M 3:00pm - 5:50pm	Seats (Total: 18) CHM 1346	Lab

5231	Monique Koppel Tu 3:30pm - 6:20pm	Seats (Total: 18) CHM 1330	Lab
5434	Monique Koppel Th 3:30pm - 6:20pm	Seats (Total: 18) CHM 1356	Lab

CHEM237 **Principles of Organic Chemistry I**

Credits: 4 Grading Method: Regular, Pass-Fail, Audit

Prerequisite: CHEM131, CHEM135, or CHEM146; and (CHEM132, CHEM136, or CHEM147); and a grade of C- or better in the prerequisites is required of College of Computer, Mathematical, and Natural Sciences majors and recommended for all students. Or permission of CMNS-Chemistry & Biochemistry department. Restriction: Must be in one of the following programs (Chemistry; Biochemistry) ; or must be in a major in ENGR-A. James Clark School of Engineering. Credit only granted for: CHEM233, (CHEM231 and CHEM232), or CHEM237.

The chemistry of carbons: aliphatic compounds, aromatic compounds, stereochemistry, arenes, halides, alcohols, esters, and spectroscopy.

Students must pay a $40.00 lab materials fee.

5325	Osvaldo Gutierrez MWF 10:00am - 10:50am W 12:00pm - 2:50pm Tu 12:30pm - 1:20pm	Seats (Total: 18) CHM 1402 CHM 1360 CHM 0128	 Lab Discussion
5335	Osvaldo Gutierrez MWF 10:00am - 10:50am W 3:00pm - 5:50pm Tu 12:30pm - 1:20pm	Seats (Total: 18) CHM 1402 CHM 1360 CHM 0128	 Lab Discussion
5345	Osvaldo Gutierrez MWF 10:00am - 10:50am Th 12:30pm - 3:20pm Tu 2:00pm - 2:50pm	Seats (Total: 18) CHM 1402 CHM 1360 CHM 0128	 Lab Discussion
5355	Osvaldo Gutierrez MWF 10:00am - 10:50am Th 3:30pm - 6:20pm Tu 2:00pm - 2:50pm	Seats (Total: 18) CHM 1402 CHM 1360 CHM 0128	 Lab Discussion

CHEM241 **Organic Chemistry II**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Prerequisite: CHEM231 and CHEM232; or CHEM237. And a grade of C- or better in the prerequisites is required for College of Computer, Mathematical, and Natural Sciences majors and recommended for all students. Credit only granted for: CHEM241, CHEM243 or CHEM247. Formerly: CHEM243.

A continuation of CHEM231 with emphasis on molecular structure; substitution reactions; carbonium ions; aromaticity; synthetic processes; macromolecules.

6121	Daniel Falvey MWF 9:00am - 9:50am Tu 8:00am - 8:50am	Seats (Total: 29) CHM 1407 CHM 0122	 Discussion
6125	Daniel Falvey MWF 9:00am - 9:50am Tu 9:30am - 10:20am	Seats (Total: 29) CHM 1407 CHM 0122	 Discussion
6127	Daniel Falvey MWF 9:00am - 9:50am Tu 11:00am - 11:50am	Seats (Total: 29) CHM 1407 CHM 0122	 Discussion
6141	Daniel Falvey MWF 9:00am - 9:50am Th 8:00am - 8:50am	Seats (Total: 29) CHM 1407 CHM 0122	 Discussion
6145	Daniel Falvey MWF 9:00am - 9:50am Th 9:30am - 10:20am	Seats (Total: 29) CHM 1407 CHM 0122	 Discussion
6147	Daniel Falvey MWF 9:00am - 9:50am Th 12:30pm - 1:20pm	Seats (Total: 29) CHM 1407 CHM 0122	 Discussion
6222	Lyle Isaacs TuTh 3:30pm - 4:45pm M 1:00pm - 1:50pm	Seats (Total: 29) CHM 1407 CHM 0122	 Discussion
6225	Lyle Isaacs TuTh 3:30pm - 4:45pm M 2:00pm - 2:50pm	Seats (Total: 29) CHM 1407 CHM 0122	 Discussion

6227	Lyle Isaacs TuTh 3:30pm - 4:45pm M 3:00pm - 3:50pm	Seats (Total: 29) CHM 1407 CHM 0122	Discussion
6242	Lyle Isaacs TuTh 3:30pm - 4:45pm W 1:00pm - 1:50pm	Seats (Total: 29) CHM 1407 CHM 0122	Discussion
6245	Lyle Isaacs TuTh 3:30pm - 4:45pm W 2:00pm - 2:50pm	Seats (Total: 29) CHM 1407 CHM 0122	Discussion
6247	Lyle Isaacs TuTh 3:30pm - 4:45pm W 3:00pm - 3:50pm	Seats (Total: 29) CHM 1407 CHM 0122	Discussion
6321	Michael Montague-Smith MWF 2:00pm - 2:50pm Tu 12:30pm - 1:20pm	Seats (Total: 29) CHM 1407 CHM 1109	Discussion
6322	Michael Montague-Smith MWF 2:00pm - 2:50pm Tu 2:00pm - 2:50pm	Seats (Total: 29) CHM 1407 CHM 1109	Discussion
6325	Michael Montague-Smith MWF 2:00pm - 2:50pm Tu 3:30pm - 4:20pm	Seats (Total: 29) CHM 1407 CHM 1109	Discussion
6341	Michael Montague-Smith MWF 2:00pm - 2:50pm Th 12:30pm - 1:20pm	Seats (Total: 29) CHM 1407 CHM 1109	Discussion
6342	Michael Montague-Smith MWF 2:00pm - 2:50pm Th 2:00pm - 2:50pm	Seats (Total: 29) CHM 1407 CHM 1109	Discussion
6345	Michael Montague-Smith MWF 2:00pm - 2:50pm Th 3:30pm - 4:20pm	Seats (Total: 29) CHM 1407 CHM 1109	Discussion

SES1	Howard Fribush M 6:30pm - 9:30pm W 6:30pm - 7:20pm	Seats (Total: 22) PLS 1140 CHM 0119	Discussion
	Restricted to students in the SIE Program. Click here for more information.		
SES2	Howard Fribush M 6:30pm - 9:30pm W 6:30pm - 7:20pm	Seats (Total: 19) PLS 1140 CHM 0122	Discussion
	Restricted to students in the SIE Program. Click here for more information.		

CHEM242 **Organic Chemistry Laboratory II**

Credits: 1 Grading Method: Regular, Pass-Fail

Prerequisite: CHEM231 and CHEM232; or CHEM237. And a grade of C- or better in the prerequisites is required for College of Computer, Mathematical, and Natural Sciences majors and recommended for all students. Corequisite: CHEM241. Credit only granted for: CHEM243 or CHEM247. Formerly: CHEM243.

Synthetic organic chemistry through functional group manipulation, introduction to instrumentation essential to analysis and structure elucidation.

Students must pay a $40.00 lab materials fee.

6122	Lee Friedman M 12:00pm - 2:50pm	Seats (Total: 18) CHM 1308	Lab
6123	Lee Friedman M 12:00pm - 2:50pm	Seats (Total: 18) CHM 1326	Lab
6131	Lee Friedman M 3:00pm - 5:50pm	Seats (Total: 18) CHM 1302	Lab
6133	Lee Friedman M 3:00pm - 5:50pm	Seats (Total: 18) CHM 1326	Lab
6141	Lee Friedman M 6:00pm - 8:50pm	Seats (Total: 18) CHM 1302	Lab
6142	Lee Friedman M 6:00pm - 8:50pm	Seats (Total: 18) CHM 1308	Lab

6221	Lee Friedman Tu 12:30pm - 3:20pm	Seats (Total: 18) CHM 1302	Lab
6222	Lee Friedman Tu 12:30pm - 3:20pm	Seats (Total: 18) CHM 1308	Lab
6223	Lee Friedman Tu 12:30pm - 3:20pm	Seats (Total: 18) CHM 1326	Lab
6231	Lee Friedman Tu 3:30pm - 6:20pm	Seats (Total: 18) CHM 1302	Lab
6233	Lee Friedman Tu 3:30pm - 6:20pm	Seats (Total: 18) CHM 1326	Lab
6241	Lee Friedman Tu 6:30pm - 9:20pm	Seats (Total: 18) CHM 1302	Lab
6242	Lee Friedman Tu 6:30pm - 9:20pm	Seats (Total: 18) CHM 1308	Lab
6321	Lee Friedman W 12:00pm - 2:50pm	Seats (Total: 18) CHM 1302	Lab
6322	Lee Friedman W 12:00pm - 2:50pm	Seats (Total: 18) CHM 1308	Lab
6323	Lee Friedman W 12:00pm - 2:50pm	Seats (Total: 18) CHM 1326	Lab
6331	Lee Friedman W 3:00pm - 5:50pm	Seats (Total: 18) CHM 1302	Lab
6332	Lee Friedman W 3:00pm - 5:50pm	Seats (Total: 14) CHM 1308	Lab
6333	Lee Friedman W 3:00pm - 5:50pm	Seats (Total: 18) CHM 1326	Lab
6341	Lee Friedman W 6:00pm - 8:50pm	Seats (Total: 18) CHM 1302	Lab

6422	Lee Friedman Th 12:30pm - 3:20pm	Seats (Total: 18) CHM 1308	Lab
6423	Lee Friedman Th 12:30pm - 3:20pm	Seats (Total: 18) CHM 1302	Lab
6431	Lee Friedman Th 3:30pm - 6:20pm	Seats (Total: 18) CHM 1302	Lab
6432	Lee Friedman Th 3:30pm - 6:20pm	Seats (Total: 18) CHM 1308	Lab
6433	Lee Friedman Th 3:30pm - 6:20pm	Seats (Total: 18) CHM 1326	Lab
SES1	Lee Friedman W 7:30pm - 10:20pm	Seats (Total: 18) CHM 1308	Lab
	Restricted to students in the SIE Program. Click here for more information.		

CHEM271 **General Chemistry and Energetics**

Credits: 2 Grading Method: Regular, Pass-Fail, Audit

Prerequisite: CHEM241 and CHEM242; or CHEM247. And a grade of C- or better in the prerequisites for College of Computer, Mathematical, and Natural Sciences majors and recommended for all students. Corequisite: CHEM272. Credit only granted for: CHEM113, CHEM153, CHEM271 or CHEM276. Formerly: CHEM113.

An introduction to the physical aspects of chemistry; chemical kinetics, thermodynamics and electrochemistry in the context of current chemistry research.

2122	Bonnie Dixon MW 11:00am - 11:50am Tu 8:00am - 8:50am	Seats (Total: 38) CHM 1407 CHM 0115	Discussion
2124	Bonnie Dixon MW 11:00am - 11:50am Tu 9:30am - 10:20am	Seats (Total: 38) CHM 1407 CHM 0115	Discussion
2125	Bonnie Dixon MW 11:00am - 11:50am Tu 11:00am - 11:50am	Seats (Total: 38) CHM 1407 CHM 0115	Discussion

2142	Bonnie Dixon MW 11:00am - 11:50am Th 8:00am - 8:50am	Seats (Total: 38) CHM 1407 CHM 0115	Discussion
2144	Bonnie Dixon MW 11:00am - 11:50am Th 9:30am - 10:20am	Seats (Total: 38) CHM 1407 CHM 0115	Discussion
2145	Bonnie Dixon MW 11:00am - 11:50am Th 12:30pm - 1:20pm	Seats (Total: 38) CHM 1407 CHM 0115	Discussion
2224	Jason Kahn MW 12:00pm - 12:50pm Tu 12:30pm - 1:20pm	Seats (Total: 38) CHM 1407 CHM 0115	Discussion
2227	Jason Kahn MW 12:00pm - 12:50pm Tu 2:00pm - 2:50pm	Seats (Total: 38) CHM 1407 CHM 0115	Discussion
2228	Jason Kahn MW 12:00pm - 12:50pm Tu 3:30pm - 4:20pm	Seats (Total: 38) CHM 1407 CHM 0115	Discussion
2244	Jason Kahn MW 12:00pm - 12:50pm Th 12:30pm - 1:20pm	Seats (Total: 38) CHM 1407 CHM 0128	Discussion
2247	Jason Kahn MW 12:00pm - 12:50pm Th 2:00pm - 2:50pm	Seats (Total: 38) CHM 1407 CHM 0128	Discussion
2248	Jason Kahn MW 12:00pm - 12:50pm Th 3:30pm - 4:20pm	Seats (Total: 38) CHM 1407 CHM 0128	Discussion
SES1	Daniel Gowetski M 6:00pm - 7:50pm W 6:30pm - 7:20pm *Restricted to students in the SIE Program. Click here for more information.*	Seats (Total: 24) PLS 1121 Location: TBA	Discussion

CHEM272 **General Bioanalytical Chemistry Laboratory**

Credits: 2 Grading Method: Regular, Pass-Fail

Prerequisite: CHEM241 and CHEM242; or CHEM247. And a grade of C- or better in the prerequisites is required for College of Computer, Mathematical, and Natural Sciences majors and recommended for all students. Corequisite: CHEM271. Credit only granted for: CHEM227, CHEM272 or CHEM277.

An introduction to analytical chemistry with an emphasis on bio-analytical instrumentation and techniques.

Students must pay a $40.00 lab materials fee.

8111	Amanda Schech F 11:00am - 11:50am M 9:00am - 11:50am	Seats (Total: 12) CHM 1407 ESJ 2312	Lab
8122	Amanda Schech F 11:00am - 11:50am M 12:00pm - 2:50pm	Seats (Total: 24) CHM 1407 ESJ 2316	Lab
8132	Amanda Schech F 11:00am - 11:50am M 3:00pm - 5:50pm	Seats (Total: 24) CHM 1407 ESJ 2316	Lab
8211	Amanda Schech F 11:00am - 11:50am Tu 9:30am - 12:20pm	Seats (Total: 24) CHM 1407 ESJ 2312	Lab
8222	Amanda Schech F 11:00am - 11:50am Tu 12:30pm - 3:20pm	Seats (Total: 24) CHM 1407 ESJ 2316	Lab
8231	Amanda Schech F 11:00am - 11:50am Tu 3:30pm - 6:20pm	Seats (Total: 24) CHM 1407 ESJ 2312	Lab
8311	Amanda Schech F 11:00am - 11:50am W 9:00am - 11:50am	Seats (Total: 24) CHM 1407 ESJ 2312	Lab
8321	Amanda Schech F 11:00am - 11:50am W 12:00pm - 2:50pm	Seats (Total: 24) CHM 1407 ESJ 2312	Lab

8331	Amanda Schech F 11:00am - 11:50am W 3:00pm - 5:50pm	Seats (Total: 24) CHM 1407 ESJ 2312	 Lab
8431	Amanda Schech F 11:00am - 11:50am Th 3:30pm - 6:20pm	Seats (Total: 24) CHM 1407 ESJ 2312	 Lab
8521	Amanda Schech F 11:00am - 11:50am F 12:00pm - 2:50pm	Seats (Total: 24) CHM 1407 ESJ 2312	 Lab
9112	Amanda Schech F 12:00pm - 12:50pm M 9:00am - 11:50am	Seats (Total: 12) CHM 1407 ESJ 2312	 Lab
9121	Amanda Schech F 12:00pm - 12:50pm M 12:00pm - 2:50pm	Seats (Total: 24) CHM 1407 ESJ 2312	 Lab
9131	Amanda Schech F 12:00pm - 12:50pm M 3:00pm - 5:50pm	Seats (Total: 24) CHM 1407 ESJ 2312	 Lab
9212	Amanda Schech F 12:00pm - 12:50pm Tu 9:30am - 12:20pm	Seats (Total: 24) CHM 1407 ESJ 2316	 Lab
9221	Amanda Schech F 12:00pm - 12:50pm Tu 12:30pm - 3:20pm	Seats (Total: 24) CHM 1407 ESJ 2312	 Lab
9232	Amanda Schech F 12:00pm - 12:50pm Tu 3:30pm - 6:20pm	Seats (Total: 24) CHM 1407 ESJ 2316	 Lab
9322	Amanda Schech F 12:00pm - 12:50pm W 12:00pm - 2:50pm	Seats (Total: 24) CHM 1407 ESJ 2316	 Lab

9332	Amanda Schech F 12:00pm - 12:50pm W 3:00pm - 5:50pm	Seats (Total: 24) CHM 1407 ESJ 2316	 Lab
9421	Amanda Schech F 12:00pm - 12:50pm Th 12:30pm - 3:20pm	Seats (Total: 24) CHM 1407 ESJ 2312	 Lab
9422	Amanda Schech F 12:00pm - 12:50pm Th 12:30pm - 3:20pm	Seats (Total: 24) CHM 1407 ESJ 2316	 Lab
9432	Amanda Schech F 12:00pm - 12:50pm Th 3:30pm - 6:20pm	Seats (Total: 24) CHM 1407 ESJ 2316	 Lab
9531	Amanda Schech F 12:00pm - 12:50pm F 3:00pm - 5:50pm	Seats (Total: 24) CHM 1407 ESJ 2312	 Lab
SES1	Amanda Schech M 8:00pm - 8:50pm W 7:30pm - 10:20pm *Restricted to students in the Science in the Evening program.*	Seats (Total: 24) PLS 1121 ESJ 2312	 Lab

CHEM276 **General Chemistry and Energetics - Majors**

Credits: 2 Grading Method: Regular, Pass-Fail, Audit

Prerequisite: Minimum grade of C- in CHEM241 and CHEM242; or minimum grade of C- in CHEM247. Corequisite: CHEM277. Restriction: Must be in one of the following programs (Chemistry; Biochemistry). Credit only granted for: CHEM113, CHEM153, CHEM271 or CHEM276. Formerly: CHEM153.

An introduction to the physical aspects of chemistry for Biochemistry and Chemistry majors. Chemical kinetics, thermodynamics and electrochemistry in the context of current chemistry research.

0224	John Fourkas WF 9:00am - 9:50am Tu 9:30am - 10:20am	Seats (Total: 45) ATL 2400 CHM 1224	 Discussion

0225	John Fourkas WF 9:00am - 9:50am Th 9:30am - 10:20am	Seats (Total: 45) ATL 2400 CHM 1224	 Discussion

CHEM277 **Fundamentals of Analytical and Bioanalytical Chemistry Laboratory**

Credits: 3 Grading Method: Regular, Pass-Fail

Prerequisite: Minimum grade of C- in CHEM241 and CHEM242; or minimum grade of C- in CHEM247. Corequisite: CHEM276. Restriction: Must be in one of the following programs (Chemistry; Biochemistry). Credit only granted for: CHEM153, CHEM227, CHEM272 or CHEM277.

Quantitative analysis, inorganic analytical chemistry, and an introduction to bio-analytical instrumentation and techniques.

Students must pay a $40.00 lab materials fee.

8111	Jason Kahn M 9:00am - 9:50am MW 12:00pm - 2:50pm	Seats (Total: 18) ATL 2400 ESJ 0312	 Lab
8121	Jason Kahn M 9:00am - 9:50am TuTh 12:30pm - 3:20pm	Seats (Total: 18) ATL 2400 ESJ 0312	 Lab
8122	Jason Kahn M 9:00am - 9:50am TuTh 3:30pm - 6:20pm	Seats (Total: 18) ATL 2400 ESJ 0312	 Lab
8131	Jason Kahn M 9:00am - 9:50am WF 3:00pm - 5:50pm	Seats (Total: 18) ATL 2400 ESJ 0312	 Lab

CHEM395 **Professional Issues in Chemistry and Biochemistry**

Credits: 1 Grading Method: Sat-Fail

Restriction: Junior standing or higher; and must be in one of the following programs (Chemistry; Biochemistry).

Seminar on professional issues. Professional responsibilities, ethics, interview techniques, career opportunities, graduate/professional school, race and gender issues.

0101	Janice Reutt-Robey	Seats (Total: 113)
	Tu 11:00am - 11:50am	CHM 1402

CHEM398 **Special Projects**

(Perm req)

Credits: 2 Grading Method: Regular, Pass-Fail, Audit

Honors projects for undergraduate students.

Limited to chemistry honors students. Consult with Dr. Montague-Smith.

Contact department for information to register for this course.

CHEM399A **Introduction to Chemical Research**

(Perm req)

Credits: 1 Grading Method: Regular, Pass-Fail, Audit

Basic (chemical) research conducted under the supervision of a faculty member.

Contact department for information to register for this course.

CHEM399B **Introduction to Chemical Research**

(Perm req)

Credits: 2 Grading Method: Regular, Pass-Fail, Audit

Basic (chemical) research conducted under the supervision of a faculty member.

Contact department for information to register for this course.

CHEM399C **Introduction to Chemical Research**

(Perm req)

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Basic (chemical) research conducted under the supervision of a faculty member.

Contact department for information to register for this course.

CHEM399X **Introduction to Chemical Research**

(Perm req)

Credits: 1-3 Grading Method: Regular, Pass-Fail, Audit

Basic (chemical) research conducted under the supervision of a faculty member.

Prerequsite: permission of department.

0101	Michael Montague-Smith Contact instructor or department for details.	Seats (Total: 15)	
0102	Lee Friedman Contact instructor or department for details.	Seats (Total: 30)	

CHEM401 **Inorganic Chemistry**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Prerequisite: CHEM276 or CHEM271; and (CHEM247 or CHEM241).

An overview of basic concepts of the electronic structure of the elements, chemical bonding and reactivity, from simple diatomic molecules to coordination compounds. These are viewed from simple (Lewis) to the most comprehensive molecular orbital theory. Symmetry and group theory are used throughout the course.

0101	Lawrence Sita MWF 2:00pm - 2:50pm	Seats (Total: 100) PLS 1140	

CHEM425 **Instrumental Methods of Analysis**

Credits: 4 Grading Method: Regular, Pass-Fail, Audit

Prerequisite: CHEM272 and CHEM271; or (CHEM276 and CHEM277).

Modern instrumentation in analytical chemistry. Electronics, spectroscopy, chromatography and electrochemistry.

Students must pay a $40.00 lab materials fee.

0101	Natalia White MW 11:00am - 11:50am MW 1:00pm - 3:50pm	Seats (Total: 12) CHM 1402 CHM 3228	 Lab
0102	Natalia White MW 11:00am - 11:50am TuTh 12:30pm - 3:20pm	Seats (Total: 12) CHM 1402 CHM 3228	 Lab
0104	Natalia White MW 11:00am - 11:50am TuTh 9:30am - 12:20pm	Seats (Total: 12) CHM 1402 CHM 3228	 Lab

0105	Natalia White MW 11:00am - 11:50am MW 6:00pm - 8:50pm	Seats (Total: 12) CHM 1402 CHM 3228	 Lab
0109	Natalia White MW 11:00am - 11:50am TuTh 6:00pm - 8:50pm	Seats (Total: 12) CHM 1402 CHM 3228	 Lab

CHEM433 **Atmospheric Chemistry and Climate**

Credits: 3 Grading Method: Regular, Pass-Fail

Prerequisite: CHEM131, CHEM135, or CHEM146. And MATH241; or permission of CMNS-Atmospheric & Oceanic Science department; or permission of CMNS-Chemistry & Biochemistry department. Cross-listed with AOSC433. Credit only granted for: AOSC433, AOSC633, CHEM433, or CHEM633. Formerly: CHEM434.

The effects of human activity on atmospheric composition, focused on global warming, the carbon cycle, air pollution, and the ozone layer. Fundamentals of atmosphereic chemistry (spectroscopy, kinetics, isotopic analysis, and biogeochemical cycles) are related to the modern understanding of climate change, air quality, and ozone depletion, based on resources such as satellite missions, field campaigns, and scientific assessments published by international agencies. We also examine how society's energy needs could be met, in the future, in a manner with less impact on atmospheric composition than the present heavy reliance on combusion of fossil fuels.

0101	Ross Salawitch TuTh 2:00pm - 3:15pm	Seats (Total: 35) ATL 2428	

CHEM481 **Physical Chemistry I**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Prerequisite: Minimum grade of C- in CHEM135; or minimum grade of C- in CHEM271 and CHEM272; or minimum grade of C- in CHEM276 and CHEM277. And minimum grade of C- in MATH141. And minimum grade of C- in PHYS260 and PHYS261; or minimum grade of C- in PHYS141.

Thermodynamics and kinetics of chemical and molecular systems. Topics may include internal energy, heat, work, enthalpy, entropy, free energy, and spontaneity as well as reaction order, differential rate laws, integrated rate laws, and rate laws for multi-step processes.

0101	YuHuang Wang MWF 9:00am - 9:50am	Seats (Total: 70) CHM 1402	

CHEM482 **Physical Chemistry II**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Prerequisite: Minimum grade of C- in CHEM481.

Quantum mechanical nature of atoms and molecules. Topics may include model systems for electronic, vibrational, rotational and translational energies as well as connections to molecular spectroscopy and thermal distributions.

0101	Elizabeth Griffith MWF 9:00am - 9:50am	Seats (Total: 54) ESJ 1215	

CHEM483 **Physical Chemistry Laboratory I**

Credits: 2 Grading Method: Regular, Pass-Fail, Audit

Prerequisite: Must have completed or be concurrently enrolled in CHEM481.

An introduction to the principles and application of quantitative techniques in physical chemical measurements. Experiments will be coordinated with topics in CHEM481.

Students must pay a $40.00 lab materials fee.

0102	Earle Stone Tu 8:00am - 8:50am W 10:00am - 12:50pm	Seats (Total: 18) PLS 1130 CHM 3225	 Lab
0103	Earle Stone Tu 8:00am - 8:50am W 2:00pm - 4:50pm	Seats (Total: 18) PLS 1130 CHM 3225	 Lab
0104	Earle Stone Tu 8:00am - 8:50am Th 2:00pm - 4:50pm	Seats (Total: 18) PLS 1130 CHM 3225	 Lab

CHEM484 **Physical Chemistry Laboratory II**

Credits: 2 Grading Method: Regular, Pass-Fail, Audit

Prerequisite: CHEM481 and CHEM483; and must have completed or be concurrently enrolled in CHEM482.

A continuation of CHEM 483. Advanced quantitative techniques necessary in physical chemical measurements. Experiments will be coordinated with topics in CHEM 482.

Rooms for second lab times are to be arranged for all sections. Students must pay a $40.00 lab materials fee.

0101	Earle Stone Tu 9:30am - 10:20am Tu 3:00pm - 5:50pm	Seats (Total: 14) CHM 0127 CHM 3221	 Lab
0103	Earle Stone Tu 9:30am - 10:20am W 3:00pm - 5:50pm	Seats (Total: 14) CHM 0127 CHM 3221	 Lab

CHEM498V **Special Topics in Chemistry; Organotransition Metal Chemistry and Catalysis**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Course description: The course provides a comprehensive review of the modern concepts of structure, bonding and reactivity of organotransition metal compounds and their relationship to organometallic catalysis. Prerequisites: for graduate students: Chem 601 for undergraduate students: Chem 401 and Chem 247

0101	Andrei Vedernikov MWF 10:00am - 10:50am	Seats (Total: 20) CHM 1224

CHEM602 **Advanced Inorganic Chemistry II**

Credits: 3 Grading Method: Regular, Audit, Sat-Fail

Prerequisite: CHEM601; or permission of instructor.

A continuation of CHEM 601 with emphasis on the application of contemporary spectroscopic techniques to inorganic problems.

0101	Efrain Rodriguez TuTh 9:30am - 10:45am	Seats (Total: 20) CHE 2140

CHEM608V **Selected Topics in Inorganic Chemistry; Organotansition Metal Chemistry and Catalysis**

Credits: 3 Grading Method: Regular, Audit, Sat-Fail

Topics of special interest and current importance.

Crosslisted with CHEM 498V. Credit only granted for CHEM 608V and CHEM 498V. Course description: The course provides a comprehensive review of the modern concepts of structure, bonding and reactivity of organotransition metal compounds and their relationship to organometallic catalysis. Prerequisites: for graduate students: Chem 601 for undergraduate students: Chem 401 and Chem 247

0101	Andrei Vedernikov	Seats (Total: 20)
	MWF 10:00am - 10:50am	CHM 1224

CHEM623 **Optical Methods of Quantitative Analysis**

Credits: 3 Grading Method: Regular, Audit, Sat-Fail

Prerequisite: CHEM482; or students who have taken courses with comparable content may contact the department.

The quantitative applications of various methods of optical spectroscopy.

0101	Neil Blough	Seats (Total: 17)
	MWF 2:00pm - 2:50pm	CHM 0128

CHEM633 **Atmospheric Chemistry and Climate**

Credits: 3 Grading Method: Regular, Sat-Fail

Prerequisite: CHEM131, CHEM135, or CHEM146. And MATH241; or permission of CMNS-Atmospheric & Oceanic Science department; or permission of CMNS-Chemistry & Biochemistry department. Cross-listed with AOSC633. Credit only granted for: AOSC433, AOSC633, CHEM433, or CHEM633.

The effects of human activity on atmospheric composition, focused on global warming, the carbon cycle, air pollution, and the ozone layer. Fundamentals of atmosphereic chemistry (spectroscopy, kinetics, isotopic analysis, and biogeochemical cycles) are related to the modern understanding of climate chane, air quality, and ozone depletion, based on resources such as satellite missions, field campaigns, and scientific assessments published by international agencies. We also examine how society's energy needs could be met, in the future, in a manner with less impact on atmospheric composition than the present heavy reliance on combusion of fossil fuels.

0101	Ross Salawitch	Seats (Total: 10)
	TuTh 2:00pm - 3:15pm	ATL 2428

CHEM647 **Organic Synthesis**

Credits: 3 Grading Method: Regular, Audit, Sat-Fail

The use of new reagents in organic reactions; multistep syntheses leading to natural products of biological interest; stereospecific and regiospecific reactions and their use in total synthesis.

0101	Jeffery Davis	Seats (Total: 20)
	MWF 9:00am - 9:50am	CHM 0124

CHEM648K **Special Topics in Organic Chemistry; Electrochemical Energy Engineering**

(Perm req)

Credits: 3

Grading Method: Regular, Audit, Sat-Fail

Topics of special interest and current importance.

0101	Chunsheng Wang	Seats (Total: 5)
	MW 11:00am - 12:15pm	JMP 2121

CHEM687 **Statistical Mechanics and Chemistry**

Credits: 3

Grading Method: Regular, Audit, Sat-Fail

Prerequisite: CHEM684; or students who have taken courses with comparable content may contact the department.

0101	Pratyush Tiwary	Seats (Total: 20)
	TuTh 11:00am - 12:15pm	PLS 1168

CHEM699 **Special Problems in Chemistry**

Credits: 1-6

Grading Method: Regular, Audit, Sat-Fail

Laboratory experience in a research environment.

Open only to non-thesis Master's degree candidates.

Contact department for information to register for this course.

CHEM703 **Introduction to Nonequilibrium Statistical Physics**

Credits: 3

Grading Method: Regular, Audit, Sat-Fail

Prerequisite: PHYS603 or CHEM687; or permission of instructor. Credit only granted for: CHPH703, CHPH718B, CHEM703, CHEM718B, PHYS703, OR PHYS798Z. Formerly: CHEM718B.

Analysis and microscopic modeling of systems away from thermal equilibrium. Linear response theory, ergodicity, Brownian motion, Monte Carlo modeling, thermal ratchets, far-from-equilibrium fluctuation relations. Introduction to the theoretical tools of nonequilibrium phenomena and their application to problems in physics, chemistry and biology.

0101	Christopher Jarzynski	Seats (Total: 40)
	TuTh 11:00am - 12:15pm	CHM 2201

CHEM705 **Nuclear Chemistry**

Credits: 3 Grading Method: Regular, Audit, Sat-Fail

Nuclear structure models, radioactive decay processes, nuclear reactions in complex nuclei, fission, nucleosynthesis and nuclear particle accelerators.

0101	Alice Mignerey	Seats (Total: 15)
	MW 4:00pm - 5:15pm	CHM 0124

CHEM799 **Master's Thesis Research**

Credits: 1-6 Grading Method: Sat-Fail

Contact department for information to register for this course.

CHEM889A **Seminar; Analytical, Nuclear and Environmental Chemistry**

Credits: 1 Grading Method: Regular, Audit, Sat-Fail

0101	Pratyush Tiwary	Seats (Total: 25)
	W 11:00am - 11:50am	CHM 0112

CHEM889C **Seminar; Inorganic Chemistry**

Credits: 1 Grading Method: Regular, Audit, Sat-Fail

0101	Philip DeShong	Seats (Total: 15)
	Th 11:00am - 11:50am	CHM 0112

CHEM889D **Seminar; Organic Chemistry**

Credits: 1 Grading Method: Regular, Audit, Sat-Fail

0101	Philip DeShong Th 11:00am - 11:50am	Seats (Total: 25) CHM 0112

CHEM889E **Seminar; Physical Chemistry**

Credits: 1 Grading Method: Regular, Audit, Sat-Fail

Cross-listed with CHEM889F and CHPH709A. Credit granted for CHEM889E, CHEM889F, or CHPH709A.

0101	Pratyush Tiwary W 11:00am - 11:50am	Seats (Total: 15) CHM 0112

CHEM889F **Seminar; Chemical Physics**

Credits: 1 Grading Method: Regular, Audit, Sat-Fail

Cross-listed with CHEM889E and CHPH709A. Credit granted for CHEM889F, CH EM889E, or CHPH709A.

0101	Pratyush Tiwary W 11:00am - 11:50am	Seats (Total: 15) CHM 0112

CHEM889G **Seminar; Physical Organic Chemistry**

Credits: 1 Grading Method: Regular, Audit, Sat-Fail

0101	Instructor: TBA Contact instructor or department for details.	Seats (Total: 5)

CHEM889M **Seminar; Materials Chemistry**

Credits: 1 Grading Method: Regular, Audit, Sat-Fail

Contact department for information to register for this course.

CHEM898 **Pre-Candidacy Research**

Credits: 1-8 Grading Method: Regular, Sat-Fail

Contact department for information to register for this course.

CHEM899 **Doctoral Dissertation Research**

(Perm req)

Credits: 6 Grading Method: Sat-Fail

Contact department for information to register for this course.

CHIN Chinese Spring 2020

CHIN102 **Elementary Spoken Chinese**

(Perm req)

Credits: 3 Grading Method: Regular, Pass-Fail

Prerequisite: CHIN101; or students who have taken courses with comparable content may contact the department; or must have attained appropriate Foreign Language Placement Test (FLPT) score. Corequisite: CHIN103. Additional information: Must be taken in conjunction with CHIN 103.

Continued study of grammatical patterns and vocabulary buildup with particular emphasis on conversation.

0101	Guiling Hu MWF 10:00am - 10:50am	Seats (Total: 15) JMZ 1117
0201	Guiling Hu MWF 2:00pm - 2:50pm	Seats (Total: 15) JMZ 1226

CHIN103 **Elementary Written Chinese**

(Perm req)

Credits: 3 Grading Method: Regular, Pass-Fail

Prerequisite: CHIN101; or students who have taken courses with comparable content may contact the department; or must have attained appropriate Foreign Language Placement Test (FLPT) score. Corequisite: CHIN102. Additional information: Must be taken in conjunction with CHIN102.

Continued study of grammatical patterns and buildup of vocabulary with particular emphasis on reading and writing.

0101	Jungjung Lee-Heitz TuTh 9:30am - 10:45am	Seats (Total: 15) JMZ 2120
0201	Guiling Hu Class time/details on ELMs	Seats (Total: 15) ONLINE

CHIN169A **Special Topics in Study Abroad I; Elementary Chinese I**

Credits: 4 Grading Method: Regular, Pass-Fail, Audit

Special topics course taken as part of an approved study abroad program.

Contact department for information to register for this course.

CHIN169B **Special Topics in Study Abroad I; Elementary Chinese II**

Credits: 3-4 Grading Method: Regular, Pass-Fail, Audit

Special topics course taken as part of an approved study abroad program.

Contact department for information to register for this course.

CHIN201 **Intermediate Spoken Chinese I**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit CORE: HO

Prerequisite: CHIN102; or must have attained appropriate Foreign Language Placement Test (FLPT) score. Corequisite: CHIN202. Additional information: Must be taken in conjunction with CHIN202.

Emphasis on development of conversational skills with vocabulary build-up and controlled conversation.

Contact department for information to register for this course.

CHIN202 **Intermediate Written Chinese I**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit CORE: HO General Education: DVCC

Prerequisite: CHIN103; or must have attained appropriate Foreign Language Placement Test (FLPT) score. Corequisite: CHIN201. Additional information: Must be taken in conjunction with CHIN201.

Reading and writing skills with emphasis on grammar and Chinese characters.

Contact department for information to register for this course.

CHIN203 **Intermediate Spoken Chinese II**

(Perm req)

Credits: 3 Grading Method: Regular, Pass-Fail CORE: HO

Prerequisite: CHIN201; or students who have taken courses with comparable content may contact the department; or must have attained appropriate Foreign Language Placement Test (FLPT) score. Corequisite: CHIN204. Additional information: Must be taken in conjunction with CHIN204.

Continuation of CHIN201.

0101	Mei Kong	Seats (Total: 15)
	MWF 10:00am - 10:50am	JMZ 1124

0201	Mei Kong MWF 11:00am - 11:50am	Seats (Total: 15) JMZ 0205

CHIN204 **Intermediate Written Chinese II**

(Perm req)

Credits: 3 | Grading Method: Regular, Pass-Fail | CORE: HO | General Education: DVCC

Prerequisite: CHIN202; or students who have taken courses with comparable content may contact the department; or must have attained appropriate Foreign Language Placement Test (FLPT) score. Corequisite: CHIN203. Additional information: Must be taken in conjunction with CHIN203.

Continuation of CHIN202.

0101	Jungjung Lee-Heitz TuTh 11:00am - 12:15pm	Seats (Total: 15) JMZ 2120
0201	Jungjung Lee-Heitz TuTh 2:00pm - 3:15pm	Seats (Total: 15) JMZ 2125

CHIN269A **Special Topics in Study Abroad II; Introduction to Beijing**

Credits: 3 | Grading Method: Regular, Pass-Fail, Audit

Special topics course taken as part of an approved study abroad program.

Contact department for information to register for this course.

CHIN269C **Special Topics in Study Abroad II; Modern Chinese Culture and Society I**

Credits: 3 | Grading Method: Regular, Pass-Fail, Audit

Special topics course taken as part of an approved study abroad program.

Contact department for information to register for this course.

CHIN269D **Special Topics in Study Abroad II; Chinese Conversation**

Credits: 3 | Grading Method: Regular, Pass-Fail, Audit

Special topics course taken as part of an approved study abroad program.

Contact department for information to register for this course.

CHIN269J **Special Topics in Study Abroad II; Intermediate Chinese**

Credits: 2-3 Grading Method: Regular, Pass-Fail, Audit

Special topics course taken as part of an approved study abroad program.

Contact department for information to register for this course.

CHIN269K **Special Topics in Study Abroad II; Intermediate Chinese II**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Special topics course taken as part of an approved study abroad program.

Contact department for information to register for this course.

CHIN269P **Special Topics in Study Abroad II; The China Phenomenon**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Special topics course taken as part of an approved study abroad program.

Contact department for information to register for this course.

CHIN269V **Special Topics in Study Abroad II; Chinese Calligraphy I**

Credits: 1-2 Grading Method: Regular, Pass-Fail, Audit

Special topics course taken as part of an approved study abroad program.

Contact department for information to register for this course.

CHIN269W **Special Topics in Study Abroad II; Chinese Calligraphy II**

Credits: 2 Grading Method: Regular, Pass-Fail, Audit

Special topics course taken as part of an approved study abroad program.

Contact department for information to register for this course.

CHIN269Z **Special Topics in Study Abroad II; Modern Chinese Culture and Society**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Special topics course taken as part of an approved study abroad program.

Contact department for information to register for this course.

CHIN301 **Advanced Chinese I**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Prerequisite: CHIN202; or students who have taken courses with comparable content may contact the department. And must have taken a placement interview offered by the department for Non-majors.

Readings in expository and fictional writing with conversation and composition.

Contact department for information to register for this course.

CHIN302 **Advanced Chinese II**

(Perm req)

Credits: 3 Grading Method: Regular, Pass-Fail

Prerequisite: CHIN301; or students who have taken courses with comparable content may contact the department. And must have taken a placement interview offered by the department for Non-majors.

Continuation of CHIN301.

0101	Guiling Hu MWF 1:00pm - 1:50pm	Seats (Total: 15) JMZ 3118
0201	Yuli Wang MWF 10:00am - 10:50am	Seats (Total: 15) JMZ 0125

CHIN306 **Life in China through TV Plays II**

(Perm req)

Credits: 3 Grading Method: Regular, Pass-Fail

Prerequisite: CHIN305; or permission of ARHU-School of Languages, Literatures, and Cultures department.

Continuation of CHIN305 using authentic Chinese language material in TV plays to learn about society and life in China.

0101	Jungjung Lee-Heitz TuTh 12:30pm - 1:45pm	Seats (Total: 15) JMZ 2120

CHIN315 **Modern Chinese Literature in Translation**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit , D General Education: DSHU

Major works of fiction and drama from 1920 to the present read in the context of social and literary change. Emphasis on western and traditional Chinese influences on the writers and their works. No knowledge of Chinese required.

0101	Ying Xue Liu	Seats (Total: 30)
	TuTh 2:00pm - 3:15pm	JMZ 3205

CHIN331 **Chinese Calligraphy: Theory and Practice**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Prerequisite: CHIN220; or permission of instructor.

History of the writing system; major scripts, modes, and styles. Intermediate brushwork and lectures on the culture. Characters for practice selected to correspond to lecture topics. Taught in English.

0101	Yuli Wang	Seats (Total: 20)
	Tu 2:00pm - 4:30pm	JMZ 0205

CHIN369A **Special Topics in Study Abroad III; China Practicum and Connecting Across Cultures**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Special topics course taken as part of an approved study abroad program.

Contact department for information to register for this course.

CHIN369B **Special Topics in Study Abroad III; Advanced Chinese I**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Special topics course taken as part of an approved study abroad program.

Contact department for information to register for this course.

CHIN369C **Special Topics in Study Abroad III; Advanced Chinese II**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Special topics course taken as part of an approved study abroad program.

Contact department for information to register for this course.

CHIN369D **Special Topics in Study Abroad III; Advanced Chinese III**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Special topics course taken as part of an approved study abroad program.

Contact department for information to register for this course.

CHIN369E **Special Topics in Study Abroad III; Advanced Chinese IV**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Special topics course taken as part of an approved study abroad program.

Contact department for information to register for this course.

CHIN369F **Special Topics in Study Abroad III; Advanced Chinese V**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Special topics course taken as part of an approved study abroad program.

Contact department for information to register for this course.

CHIN369G **Special Topics in Study Abroad III; Advanced Chinese VI**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Special topics course taken as part of an approved study abroad program.

Contact department for information to register for this course.

CHIN369I **Special Topics in Study Abroad III; Advanced Chinese VII**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Special topics course taken as part of an approved study abroad program.

Contact department for information to register for this course.

CHIN369J **Special Topics in Study Abroad III; Advanced Chinese VIII**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Special topics course taken as part of an approved study abroad program.

Contact department for information to register for this course.

CHIN369M **Special Topics in Study Abroad III; Modern Chinese Culture II**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Special topics course taken as part of an approved study abroad program.

Contact department for information to register for this course.

CHIN386 **Experiential Learning**

(Perm req)

Credits: 3-6

Grading Method: Regular, Pass-Fail

Prerequisite: Must have learning proposal approved by the Office of Experiential Learning Programs, faculty sponsor, and student's internship sponsor. Restriction: Junior standing or higher.

Contact department for information to register for this course.

CHIN401 **Readings in Modern Chinese I**

Credits: 3

Grading Method: Regular, Pass-Fail, Audit

Prerequisite: CHIN302; or students who have taken courses with comparable content may contact the department. And must have taken a placement interview offered by the department for Non-majors.

Readings in history, politics, economics, sociology, and literature. Emphasis on wide-ranging, rapid reading, reinforced by conversations and compositions.

Contact department for information to register for this course.

CHIN402 **Readings in Modern Chinese II**

(Perm req)

Credits: 3

Grading Method: Regular, Pass-Fail

Prerequisite: CHIN401; or students who have taken courses with comparable content may contact the department. And must have taken a placement interview offered by the department for Non-majors.

Continuation of CHIN401.

0101	Yuli Wang MWF 11:00am - 11:50am	Seats (Total: 15) JMZ 1226
0201	Mei Kong MWF 2:00pm - 2:50pm	Seats (Total: 15) JMZ 3118

CHIN403 **Classical Chinese I**

Credits: 3

Grading Method: Regular, Pass-Fail, Audit

Prerequisite: CHIN302 or CHIN306; or permission of instructor. Additional information: Texts in Chinese. Class discussion and course work mainly in English.

Close readings and discussion of literary, philosophical and historical texts in the original language. The course situates texts in their historical context and also discusses differences between classical and modern Chinese.

0101	Mei Kong	Seats (Total: 15)
	MWF 3:00pm - 3:50pm	JMZ 0103

CHIN418M **Special Topics in Contemporary Chinese Fiction and Film; Modern Chinese Literacy Criticism and Theory**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Various approaches to the most recent textual productions of China and Taiwan. Taught in Chinese.

One of the key forces behind China's cultural and intellectual modernization is the founding of a new literary tradition. This course studies how modern Chinese literary critics read, understand, and analyze modern Chinese literature by integrating modern ideas and practices with pre-modern ones and connecting Chinese and Western analytical traditions. Taught in English. No Chinese is required, though Chinese readings can be provided upon request. No course prerequisite.

0101	Ying Xue Liu	Seats (Total: 15)
	TuTh 11:00am - 12:15pm	JMZ 0118

CHIN429G **Selected Topics in Chinese Studies; Ethnic and Cultural Diversity in China**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

In-depth study of a particular aspect of Chinese cultural, linguistic, literary studies. Specific topic to be announced when course is offered. Taught in English.

0101	Minglang Zhou	Seats (Total: 25)
	TuTh 9:30am - 10:45am	JMZ 1122

CHIN441 **Traditional Chinese Fiction**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Prerequisite: Permission of ARHU-School of Languages, Literatures, and Cultures department.

Major works of fiction from the 4th century tales of the marvelous through the 19th century Qing novel. Readings are in classical Chinese and English. Designed for students with advanced language skills. Taught in English.

0101	Andrew Schonebaum	Seats (Total: 15)
	TuTh 2:00pm - 3:15pm	JMZ 1117

CHIN499 **Directed Study in Chinese**

(Perm req)

Credits: 1-3 Grading Method: Regular, Pass-Fail

Readings in Chinese under faculty supervision.

Contact department for information to register for this course.

CHIN499A **Directed Study in Chinese; Advanced Chinese V**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Readings in Chinese under faculty supervision.

Contact department for information to register for this course.

CHIN499C **Directed Study in Chinese; Advanced Chinese VI**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Readings in Chinese under faculty supervision.

Contact department for information to register for this course.

CHPH Chemical Physics Spring 2020

CHPH618 **Special Projects in Chemical Physics**

(Perm req)

Credits: 2 Grading Method: Regular, Audit, Sat-Fail

Independent reading and study covering chemical physics subject areas not available in other courses.

Contact department for information to register for this course.

CHPH703 **Introduction to Nonequilibrium Statistical Physics**

Credits: 3 Grading Method: Regular, Audit, Sat-Fail

Prerequisite: PHYS603 or CHEM687; or permission of instructor. Credit only granted for: CHPH703, CHPH718B, CHEM703, CHEM718B, PHYS703, or PHYS798Z. Formerly: CHPH718B.

Analysis and microscopic modeling of systems away from thermal equilibrium. Linear response theory, ergodicity, Brownian motion, Monte Carlo modeling, thermal ratchets, far-from-equilibrium fluctuation relations. Introduction to the theoretical tools of nonequilibrium phenomena and their application to problems in physics, chemistry and biology.

0101	Christopher Jarzynski	Seats (Total: 40)
	TuTh 11:00am - 12:15pm	CHM 2201

CHPH709A **Seminar in Chemical Physics; Physical Chemistry**

Credits: 1 Grading Method: Regular, Audit, Sat-Fail

Current research and developments in chemical physics.

Jointly offered with CHEM 889E and CHEM 889F. Credit granted for CHPH709 A, CHEM889E, or CHEM889F.

0101	Pratyush Tiwary	Seats (Total: 15)
	W 11:00am - 11:50am	CHM 0112

CHPH709B **Seminar in Chemical Physics; Statistical Physics**

Credits: 1 Grading Method: Regular, Audit, Sat-Fail

Current research and developments in chemical physics.

Cross-listed with PHYS709. Credit granted for PHYS709 or CHPH709B.

0101	Christopher Jarzynski	Seats (Total: 30)
	Tu 1:15pm - 2:30pm	IPT 1116

CHPH709L **Seminar in Chemical Physics; Biophysics**

Credits: 1 Grading Method: Regular, Audit, Sat-Fail

Current research and developments in chemical physics.

Cross-listed with PHYS798L. Credit granted for PHYS798L or CHPH709L.

0101	Arpita Upadhyaya	Seats (Total: 20)
	M 4:00pm - 5:30pm	CHM 0112

CHPH718E **Special Topics in Chemical Physics; Mesoscopic and Nanoscale Thermodynamics**

Credits: 1-3 Grading Method: Regular, Audit, Sat-Fail

A discussion of current research problems in chemical physics.

0101	Mikhail Anisimov	Seats (Total: 5)
	TuTh 12:30pm - 1:45pm	EGR 1104

CHPH718F **Special Topics in Chemical Physics; Methods of Statistical Physics**

Credits: 3 Grading Method: Regular, Audit, Sat-Fail

A discussion of current research problems in chemical physics.

Prerequisite: PHYS414 or equivalent. Credit granted for PHYS602 or PHYS603. Foundations and applications of thermodynamics and statisticalmechanics. Advanced special students require department authorization. Jointly offered with PHYS603.

0101	Brian Swingle	Seats (Total: 49)
	TuTh 9:30am - 10:45am	PHY 1402

CHPH718I **Special Topics in Chemical Physics; Chemical Physics Rotation**

(Perm req)

Credits: 1-3 Grading Method: Regular, Audit, Sat-Fail

A discussion of current research problems in chemical physics.

0201	Christopher Jarzynski	Seats (Total: 10)
	Contact instructor or department for details.	

CHPH799 **Master's Thesis Research**

(Perm req)

Credits: 1-6 Grading Method: Sat-Fail

Contact department for information to register for this course.

CHPH898 **Pre-Candidacy Research**

(Perm req)

Credits: 1-8 Grading Method: Regular, Sat-Fail

Contact department for information to register for this course.

CHPH899 **Doctoral Dissertation Research**

(Perm req) Credits: 6 Grading Method: Sat-Fail

Contact department for information to register for this course.

CLAS Classics Spring 2020

CLAS169M **Special Topics in Study Abroad I; Myths and Legends**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Special topics course taken as part of an approved study abroad program.

Contact department for information to register for this course.

CLAS169R **Special Topics in Study Abroad I; Ancient Rome: Civilization and Legacy**

Credits: 1-6 Grading Method: Regular, Pass-Fail, Audit

Special topics course taken as part of an approved study abroad program.

Contact department for information to register for this course.

CLAS170 **Greek and Roman Mythology**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit CORE: HL General Education: DSHU

Cross-listed with RELS170. Credit only granted for: CLAS170 or RELS170. Additional information: This course cannot be taken for language credit.

An introduction to the mythology of ancient Greece and Rome. This course is particularly recommended for students planning to major in foreign languages, English, history, the fine arts, or journalism. Taught in English.

0101	Jorge Bravo MW 11:00am - 11:50am Th 9:30am - 10:20am	Seats (Total: 21) MMH 1400 HBK 1108	Discussion
0102	Jorge Bravo MW 11:00am - 11:50am Th 11:00am - 11:50am	Seats (Total: 21) MMH 1400 HBK 1108	Discussion
0103	Jorge Bravo MW 11:00am - 11:50am Th 12:30pm - 1:20pm	Seats (Total: 21) MMH 1400 HBK 1108	Discussion

0104	Jorge Bravo MW 11:00am - 11:50am Th 9:30am - 10:20am	Seats (Total: 21) MMH 1400 HBK 0123	Discussion
0105	Jorge Bravo MW 11:00am - 11:50am Th 11:00am - 11:50am	Seats (Total: 21) MMH 1400 HBK 0123	Discussion
0106	Jorge Bravo MW 11:00am - 11:50am Th 12:30pm - 1:20pm	Seats (Total: 21) MMH 1400 HBK 0123	Discussion
0107	Jorge Bravo MW 11:00am - 11:50am F 10:00am - 10:50am	Seats (Total: 21) MMH 1400 HBK 0123	Discussion
0108	Jorge Bravo MW 11:00am - 11:50am F 11:00am - 11:50am	Seats (Total: 21) MMH 1400 HBK 0123	Discussion
0109	Jorge Bravo MW 11:00am - 11:50am F 1:00pm - 1:50pm	Seats (Total: 21) MMH 1400 HBK 0123	Discussion

CLAS171 **Classical Myths in Europe**

Credits: 1 Grading Method: Regular, Pass-Fail, Audit

The role which Classical Myths have played in the arts, architecture and politics of a major European city. This will only be offered through the study abroad program.

France

Contact department for information to register for this course.

CLAS289A **Are We Rome?**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit CORE: SH General Education: DSHS, DSHU, SCIS

0101	Eric Adler MW 3:00pm - 3:50pm F 10:00am - 10:50am	Seats (Total: 25) BPS 1250 HBK 1112	Discussion

0102	Eric Adler MW 3:00pm - 3:50pm F 11:00am - 11:50am	Seats (Total: 25) BPS 1250 HBK 0103	Discussion
0103	Eric Adler MW 3:00pm - 3:50pm F 1:00pm - 1:50pm	Seats (Total: 25) BPS 1250 HBK 0105	Discussion
0104	Eric Adler MW 3:00pm - 3:50pm Th 9:30am - 10:20am	Seats (Total: 25) BPS 1250 PLS 1146	Discussion
0105	Eric Adler MW 3:00pm - 3:50pm Th 11:00am - 11:50am	Seats (Total: 25) BPS 1250 PLS 1115	Discussion
0106	Eric Adler MW 3:00pm - 3:50pm Th 12:30pm - 1:20pm	Seats (Total: 25) BPS 1250 JMZ 3205	Discussion

CLAS305 **Archaeological Methods and Practice**

Credits: 3 Grading Method: Regular, Pass-Fail General Education: DSHS

Prerequisite: ANTH240, ARTH200, or CLAS180. Cross-listed with: ANTH305, ARTH305, JWST319Y. Credit only granted for: ANTH305, ARTH305, CLAS305, or JWST319Y.

A team-taught, interdisciplinary course discussing theories, methods, and ethical issues in the practice of archaeology.

0101	Christian Cloke MW 10:00am - 11:15am	Seats (Total: 25) ASY 4213	

CLAS309B **Special Topics in Classical Literature; Breaking Bad Laws Old Style: Classics and Civil Disobedience**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Readings in translation.

0101	Robert Matera TuTh 11:00am - 12:15pm	Seats (Total: 35) ASY 3211	

CLAS470 **Approaches to Greek Mythology**

Credits: 3 | Grading Method: Regular, Pass-Fail, Audit | General Education: DSHU, DSSP

Prerequisite: CLAS170; or permission of ARHU-Classics department.

Ancient and modern approaches to understanding Greek myth as expression of human experience, including interpretations drawn from psychology, anthropology, and comparative mythology.

0101	Lillian Doherty	Seats (Total: 35)
	TuTh 9:30am - 10:45am	TYD 0111

CLAS499 **Independent Study in Classical Languages and Literatures**

(Perm req)

Credits: 1-3 | Grading Method: Regular, Pass-Fail, Audit

Contact department for information to register for this course.

CLAS499P **Independent Study in Classical Languages and Literatures; Classical Myth in Europe**

Credits: 1 | Grading Method: Regular, Pass-Fail, Audit

Contact department for information to register for this course.

CLAS699 **Independent Study in Classical Civilization**

Credits: 1-3 | Grading Method: Regular, Audit, Sat-Fail

0401	Lillian Doherty	Seats (Total: 1)
	Contact instructor or department for details.	

CLFS Chemical and Life Sciences Spring 2020

CLFS608 **Seminar in Current Topics in Chemical and Life Science; Scholarly Paper**

(Perm req)

Credits: 1-3 | Grading Method: Regular, Audit, Sat-Fail

Seminar in current topics in the Life Sciences. Contact Program Director or instructor before registering.

Contact Dr. Brett Kent (bkent@umd.edu) to establish a mentor; and then contact the Office of Extended Studies (oes@umd.edu) to register.

Contact department for information to register for this course.

CLFS608A **Seminar in Current Topics in Chemical and Life Science; Independent Research**

(Perm req)

Credits: 1-3

Grading Method: Regular, Audit, Sat-Fail

Seminar in current topics in the Life Sciences. Contact Program Director or instructor before registering.

Contact the Office of Extended Studies (oes@umd.edu) to register.

Contact department for information to register for this course.

CLFS619B **Special Topics in Chemistry; Environmental Chemistry**

Credits: 3

Grading Method: Regular, Audit, Sat-Fail

Topics of current interest and special importance.

Must be in Master of Chemical & Life Sciences Program; for permission to enroll, contact oes@umd.edu

PL01	Marjan Alaghmand	Seats (Total: 15)
	Meets February 27, 2020 - May 20, 2020	
	Class time/details on ELMs	ONLINE
	Must be in Master of Chemical & Life Sciences Program; for permission to enroll, contact oes@umd.edu.	

CLFS665 **Ecology and Global Change**

Credits: 3

Grading Method: Regular, Audit, Sat-Fail

Credit only granted for: LFSC609C or LFSC665. Formerly: LFSC609C.

Ecological concepts across scales ranging from the individual, to populations, communities, ecosystems, and landscapes will be presented. Global change issues will encompass alteration of atmospheric trace gases, biogeochemistry cycles, land use changes, and introduction of non-native species to new habitats.

Must be in Master of Chemical & Life Sciences Program; for permission to enroll, contact oes@umd.edu

Click here for more course information.

PL01	Marcia Shofner	Seats (Total: 15)
	Meets February 27, 2020 - May 20, 2020	
	Class time/details on ELMs	ONLINE

CLFS690 **Biochemistry**

Credits: 3 | Grading Method: Regular, Audit, Sat-Fail

An advanced overview of general biochemistry including a study of protein structure and their physical properties; how these properties relate to catalysis, regulation of catalysis and metabolic chemistry with respect to their relationship to physiological conditions.

Must be in Master of Chemical & Life Sciences Program; for permission to enroll, contact oes@umd.edu

Click here for more course information.

PL01	David Jollie **Meets February 27, 2020 - May 20, 2020** Contact instructor or department for details.	Seats (Total: 15)

CMLT Comparative Literature Spring 2020

CMLT235 **Black Diaspora Literature and Culture**

Credits: 3 | Grading Method: Regular, Pass-Fail, Audit | CORE: HL, D | General Education: DSHU, DVUP

Examination of key works by writers of the African Diaspora. Relationship among black people across multiple geographic spaces; Africa, the Caribbean, the United States, Europe, Latin America, and Asia. Specific historical, cultural, and literary contexts; themes such as gender, sexuality, migration, slavery, freedom, and equality. Readings may include literary texts (fiction, poetry, drama), music and film. All readings in English, but drawn from multiple languages of the black diaspora, including English, Spanish, French and Portuguese.

0101	Steve Beaulieu MWF 2:00pm - 2:50pm	Seats (Total: 30) KEY 0121

CMLT242 **Introduction to Jewish Literature**

Credits: 3 | Grading Method: Regular, Pass-Fail, Audit | General Education: DSHU, DVUP

Cross-listed with: JWST272, ISRL249G. Credit only granted for: JWST272, CMLT242, or ISRL249G.

A survey of Jewish literature and introduction to methods of reading literature in general and Jewish literature in particular. Concern with what makes a literary corpus Jewish and other issues of canonicity. All texts in English translation.

Cross-listed with JWST272 and ISRL249G. Credit only granted for JWST272, ISRL249G, or CMLT242.

0101	Adi Mahalel TuTh 2:00pm - 3:15pm Class time/details on ELMs	Seats (Total: 40) SQH 1103 ONLINE

CMLT270 **Global Literature and Social Change**

Credits: 3 | Grading Method: Regular, Pass-Fail, Audit | CORE: HL, D | General Education: DSHU, DVUP

Comparative study of literature through selected literary works from several non-Western cultures, viewed cross-culturally in light of particular social, political, and economic perspectives.

0201	Nancy Vera TuTh 12:30pm - 1:45pm	Seats (Total: 30) JMZ 1224
0301	Sara Faradji TuTh 2:00pm - 3:15pm	Seats (Total: 30) KEY 0121

CMLT275 **World Literature by Women**

Credits: 3 | Grading Method: Regular, Pass-Fail, Audit | CORE: HL, D | General Education: DSHU, DVUP

Cross-listed with WMST275. Credit only granted for: CMLT275 or WMST275.

Comparative study of selected works by women writers of several countries, exploring points of intersection and divergence in women's literary representations.

0101	Brian Davis TuTh 12:30pm - 1:45pm	Seats (Total: 30) KEY 0126
0201	Keisha Allan MWF 11:00am - 11:50am	Seats (Total: 30) JMZ 2123

CMLT277 **Literatures of the Americas**

Credits: 3 | Grading Method: Regular, Pass-Fail, Audit | CORE: HL, D | General Education: DSHU, DVUP

Comparative study of several North, South, and Central American cultures with a focus on the specificities, similarities, and divergences of their literary and cultural texts.

Contact department for information to register for this course.

CMLT280 **Film Art in a Global Society**

Credits: 3 | Grading Method: Regular, Pass-Fail, Audit | CORE: HA, D | General Education: DSHU, DVUP

Comparative study of a variety of film traditions from around the world, including cinema from Hollywood, Europe, Asia and developing countries, with a stress on different cultural contexts for film-making and viewing.

Cross-listed with FILM298D. Credit only granted for: CMLT280 or FILM298D.

0101	Luka Arsenjuk MW 1:00pm - 1:50pm F 12:00pm - 12:50pm	Seats (Total: 25) TWS 0320 TWS 0236	 Discussion
0102	Luka Arsenjuk MW 1:00pm - 1:50pm F 1:00pm - 1:50pm	Seats (Total: 25) TWS 0320 TWS 1107	 Discussion
0103	Luka Arsenjuk MW 1:00pm - 1:50pm F 11:00am - 11:50am	Seats (Total: 25) TWS 0320 TWS 0236	 Discussion
0104	Luka Arsenjuk MW 1:00pm - 1:50pm F 1:00pm - 1:50pm	Seats (Total: 25) TWS 0320 TWS 0221	 Discussion

CMLT386 **Experiential Learning**

(Perm req)

Credits: 3-6 | Grading Method: Regular, Pass-Fail

Restriction: Junior standing or higher; and permission of ARHU-English department.

Contact department for information to register for this course.

CMLT398C **Special Topics in Comparative Studies; Cinema of Liberation**

Credits: 3 | Grading Method: Regular, Pass-Fail, Audit

Special topics in comparitive studies.

Cross-listed with ENGL329A. Credit granted for CMLT398C or ENGL329A. Repeatable to 9 credits if content differs.

0201	Eugene Robinson Class time/details on ELMs	Seats (Total: 25) ONLINE	

CMLT398D **Special Topics in Comparative Studies; The Jazz Paradigm**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Special topics in comparitive studies.

Cross-listed with ENGL379R. Credit granted for CMLT398D or ENGL379R.

0201	Eugene Robinson	Seats (Total: 28)
	Class time/details on ELMs	ONLINE

CMLT398F **Special Topics in Comparative Studies; Comparative Black and Native American Literature**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Special topics in comparitive studies.

Also offered as ENGL379A. Credit only granted for CMLT398F or ENGL379A.

0101	Chad Infante	Seats (Total: 25)
	TuTh 12:30pm - 1:45pm	TWS 1105

CMLT679A **Topics in Comparative Studies; Marxism and Its Afterlives**

(Perm req)

Credits: 3 Grading Method: Regular, Audit, Sat-Fail

Seminar in modern and contemporary literature: as announced.

0101	Orrin Wang	Seats (Total: 14)
	W 6:30pm - 9:00pm	TWS 3136

CMLT699 **Independent Study**

(Perm req)

Credits: 1-6 Grading Method: Regular, Sat-Fail

Research and writing on specific readings on a topic selected by the student which is approved and supervised by a faculty member.

Contact department for information to register for this course.

CMLT799 **Master's Thesis Research**

Credits: 1-6 Grading Method: Sat-Fail

Contact department for information to register for this course.

CMLT898 **Pre-Candidacy Research**

Credits: 1-8 Grading Method: Regular, Sat-Fail

Contact department for information to register for this course.

CMLT899 **Doctoral Dissertation Research**

(Perm req)

Credits: 6 Grading Method: Sat-Fail

Contact department for information to register for this course.

CMSC Computer Science Spring 2020

CMSC106 **Introduction to C Programming**

Credits: 4 Grading Method: Regular, Pass-Fail, Audit

Prerequisite: MATH115. Restriction: Must not be in Computer Science program; and must not have completed any courses from CMSC131-499 course range. Credit only granted for: CMSC106, CMSC122, or INST126.

Design and analysis of programs in C. An introduction to computing using structured programming concepts. Intended for students with no or minimal programming experience.

Contact department for information to register for this course.

CMSC122 **Introduction to Computer Programming via the Web**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit CORE: IE General Education: DSSP

Restriction: Must not have completed any courses from CMSC131-499 course range; and must not be concurrently enrolled in CMSC131. Credit only granted for: CMSC106, or CMSC122.

Introduction to computer programming in the context of developing full featured dynamic web sites. Uses a problem solving approach to teach basics of program design and implementation using JavaScript; relates these skills to creation of dynamic web sites; then explores both the potential and limits of web-based information sources for use in research. Intended to help relate a student's major to these emerging technologies.

0101	Jennifer Manly	Seats (Total: 145)
	MWF 4:00pm - 4:50pm	CSI 1115

CMSC131 **Object-Oriented Programming I**

Credits: 4

Grading Method: Regular, Pass-Fail

Corequisite: MATH140.

Introduction to programming and computer science. Emphasizes understanding and implementation of applications using object-oriented techniques. Develops skills such as program design and testing as well as implementation of programs using a graphical IDE. Programming done in Java.

0101	Pedram Sadeghian MWF 12:00pm - 12:50pm TuTh 9:30am - 10:20am	Seats (Total: 12) IRB 0324 CSI 3120	Discussion
0102	Pedram Sadeghian MWF 12:00pm - 12:50pm TuTh 11:00am - 11:50am	Seats (Total: 34) IRB 0324 CSI 3120	Discussion
0103	Pedram Sadeghian MWF 12:00pm - 12:50pm TuTh 12:30pm - 1:20pm	Seats (Total: 16) IRB 0324 CSI 3120	Discussion
0104	Pedram Sadeghian MWF 12:00pm - 12:50pm TuTh 2:00pm - 2:50pm	Seats (Total: 5) IRB 0324 CSI 3120	Discussion
0105	Pedram Sadeghian MWF 12:00pm - 12:50pm TuTh 3:30pm - 4:20pm	Seats (Total: 2) IRB 0324 CSI 3120	Discussion
0201	Pedram Sadeghian MWF 1:00pm - 1:50pm TuTh 9:30am - 10:20am	Seats (Total: 3) IRB 0324 CSI 3120	Discussion
0202	Pedram Sadeghian MWF 1:00pm - 1:50pm TuTh 11:00am - 11:50am	Seats (Total: 34) IRB 0324 CSI 2118	Discussion
0203	Pedram Sadeghian MWF 1:00pm - 1:50pm TuTh 12:30pm - 1:20pm	Seats (Total: 16) IRB 0324 CSI 3120	Discussion

0204	Pedram Sadeghian MWF 1:00pm - 1:50pm TuTh 2:00pm - 2:50pm	Seats (Total: 5) IRB 0324 CSI 3120	 Discussion
0205	Pedram Sadeghian MWF 1:00pm - 1:50pm TuTh 3:30pm - 4:20pm	Seats (Total: 5) IRB 0324 CSI 3120	 Discussion
0301	Nelson Padua-Perez MWF 3:00pm - 3:50pm TuTh 9:30am - 10:20am	Seats (Total: 25) IRB 0324 CSI 3120	 Discussion
0302	Nelson Padua-Perez MWF 3:00pm - 3:50pm TuTh 11:00am - 11:50am	Seats (Total: 34) IRB 0324 CSI 3118	 Discussion
0303	Nelson Padua-Perez MWF 3:00pm - 3:50pm TuTh 12:00pm - 12:50pm	Seats (Total: 32) IRB 0324 CSI 3118	 Discussion
0304	Nelson Padua-Perez MWF 3:00pm - 3:50pm TuTh 1:00pm - 1:50pm	Seats (Total: 38) IRB 0324 CSI 3118	 Discussion
0305	Nelson Padua-Perez MWF 3:00pm - 3:50pm TuTh 2:00pm - 2:50pm	Seats (Total: 25) IRB 0324 CSI 3120	 Discussion
0306	Nelson Padua-Perez MWF 3:00pm - 3:50pm TuTh 3:30pm - 4:20pm	Seats (Total: 25) IRB 0324 CSI 3120	 Discussion
0307	Nelson Padua-Perez MWF 3:00pm - 3:50pm TuTh 5:00pm - 5:50pm	Seats (Total: 32) IRB 0324 CSI 3118	 Discussion
0401	Nelson Padua-Perez MWF 12:00pm - 12:50pm TuTh 9:30am - 10:20am	Seats (Total: 28) CSI 1115 CSI 2120	 Discussion

0402	Nelson Padua-Perez MWF 12:00pm - 12:50pm TuTh 11:00am - 11:50am	Seats (Total: 28) CSI 1115 CSI 2120	Discussion
0403	Nelson Padua-Perez MWF 12:00pm - 12:50pm TuTh 12:30pm - 1:20pm	Seats (Total: 28) CSI 1115 CSI 2120	Discussion
0404	Nelson Padua-Perez MWF 12:00pm - 12:50pm TuTh 12:30pm - 1:20pm	Seats (Total: 28) CSI 1115 IRB 2107	Discussion
0405	Nelson Padua-Perez MWF 12:00pm - 12:50pm TuTh 8:00am - 8:50am	Seats (Total: 28) CSI 1115 CSI 2120	Discussion

CMSC132 **Object-Oriented Programming II**

Credits: 4 Grading Method: Regular, Pass-Fail

Prerequisite: Minimum grade of C- in CMSC131; or must have earned a score of 5 on the A Java AP exam; or must have earned a satisfactory score on the departmental placement exam. And minimum grade of C- in MATH140.

Introduction to use of computers to solve problems using software engineering principles. Design, build, test, and debug medium -size software systems and learn to use relevant tools. Use object-oriented methods to create effective and efficient problem solutions. Use and implement application programming interfaces (APIs). Programming done in Java.

0101	Laurence Herman MWF 2:00pm - 2:50pm MW 3:00pm - 3:50pm	Seats (Total: 35) IRB 0324 CSI 1121	Discussion
0102	Laurence Herman MWF 2:00pm - 2:50pm MW 3:00pm - 3:50pm	Seats (Total: 35) IRB 0324 CSI 1122	Discussion
0103	Laurence Herman MWF 2:00pm - 2:50pm MW 3:00pm - 3:50pm	Seats (Total: 35) IRB 0324 CSI 2107	Discussion

0104	Laurence Herman MWF 2:00pm - 2:50pm MW 4:00pm - 4:50pm	Seats (Total: 24) IRB 0324 CSI 1121	 Discussion
0106	Laurence Herman MWF 2:00pm - 2:50pm MW 5:00pm - 5:50pm	Seats (Total: 35) IRB 0324 CSI 2107	 Discussion
0201	Laurence Herman MWF 11:00am - 11:50am MW 12:00pm - 12:50pm	Seats (Total: 35) IRB 0324 CSI 1121	 Discussion
0202	Laurence Herman MWF 11:00am - 11:50am MW 12:00pm - 12:50pm	Seats (Total: 35) IRB 0324 CSI 1122	 Discussion
0203	Laurence Herman MWF 11:00am - 11:50am MW 5:00pm - 5:50pm	Seats (Total: 35) IRB 0324 CSI 2120	 Discussion
0204	Laurence Herman MWF 11:00am - 11:50am MW 1:00pm - 1:50pm	Seats (Total: 21) IRB 0324 CSI 1121	 Discussion
0205	Laurence Herman MWF 11:00am - 11:50am MW 1:00pm - 1:50pm	Seats (Total: 10) IRB 0324 CSI 1121	 Discussion
0206	Laurence Herman MWF 11:00am - 11:50am MW 4:00pm - 4:50pm	Seats (Total: 32) IRB 0324 CSI 3118	 Discussion
0207	Laurence Herman MWF 11:00am - 11:50am MW 2:00pm - 2:50pm	Seats (Total: 16) IRB 0324 CSI 1121	 Discussion
0301	Fawzi Emad MWF 9:00am - 9:50am MW 10:00am - 10:50am	Seats (Total: 35) IRB 0324 CSI 1121	 Discussion

0302	Fawzi Emad MWF 9:00am - 9:50am MW 10:00am - 10:50am	Seats (Total: 35) IRB 0324 CSI 1122	Discussion
0303	Fawzi Emad MWF 9:00am - 9:50am MW 10:00am - 10:50am	Seats (Total: 35) IRB 0324 CSI 2107	Discussion
0304	Fawzi Emad MWF 9:00am - 9:50am MW 11:00am - 11:50am	Seats (Total: 35) IRB 0324 IRB 1207	Discussion
0305	Fawzi Emad MWF 9:00am - 9:50am MW 12:00pm - 12:50pm	Seats (Total: 35) IRB 0324 IRB 1207	Discussion
0306	Fawzi Emad MWF 9:00am - 9:50am MW 1:00pm - 1:50pm	Seats (Total: 35) IRB 0324 IRB 1207	Discussion
0307	Fawzi Emad MWF 9:00am - 9:50am MW 2:00pm - 2:50pm	Seats (Total: 35) IRB 0324 IRB 1207	Discussion
0308	Fawzi Emad MWF 9:00am - 9:50am MW 3:00pm - 3:50pm	Seats (Total: 35) IRB 0324 IRB 2107	Discussion
0401	Fawzi Emad MWF 10:00am - 10:50am MW 11:00am - 11:50am	Seats (Total: 35) CSI 1115 CSI 1121	Discussion
0402	Fawzi Emad MWF 10:00am - 10:50am MW 11:00am - 11:50am	Seats (Total: 35) CSI 1115 CSI 1122	Discussion
0403	Fawzi Emad MWF 10:00am - 10:50am MW 11:00am - 11:50am	Seats (Total: 35) CSI 1115 CSI 3120	Discussion

0501	Fawzi Emad MWF 11:00am - 11:50am MW 2:00pm - 2:50pm	Seats (Total: 35) CSI 1115 IRB 2107	 Discussion
0502	Fawzi Emad MWF 11:00am - 11:50am MW 2:00pm - 2:50pm	Seats (Total: 35) CSI 1115 IRB 2207	 Discussion
0503	Fawzi Emad MWF 11:00am - 11:50am MW 3:00pm - 3:50pm	Seats (Total: 35) CSI 1115 IRB 2207	 Discussion

CMSC133 **Object Oriented Programming I Beyond Fundamentals**

(Perm req)

Credits: 2 Grading Method: Regular, Pass-Fail

Corequisite: MATH140. Restriction: Permission of CMNS-Computer Science department; and student must have earned a 4 on the AP Computer Science A exam or a satisfactory score on the CMSC131 department placement exam. Credit only granted for: CMSC131 or CMSC133.

An introduction to computer science and object-oriented programming for students with prior Java programming knowledge (conditionals, loops, methods). Program design, implementation, and testing using object-oriented techniques. All programming will be done in Java using a graphical IDE.

0104	Nelson Padua-Perez M 5:00pm - 6:15pm F 2:00pm - 2:50pm	Seats (Total: 20) CSI 1115 CSI 2120	 Discussion

CMSC216 **Introduction to Computer Systems**

Credits: 4 Grading Method: Regular, Pass-Fail

Prerequisite: Minimum grade of C- in CMSC132; and minimum grade of C- in MATH141. Restriction: Must be in a major within the CMNS-Computer Science department; or must be in Engineering: Computer program; or must be in the Computer Science Minor program.

Introduction to the interaction between user programs and the operating system/hardware. Major topics include C programming, introductory systems programming, and assembly language. Other concepts covered include UNIX, machine data representation, thread management, optimization, and virtual memory. Programming is done in the Linux Environment.

0101	A Shankar TuTh 11:00am - 12:15pm MW 9:00am - 9:50am	Seats (Total: 35) IRB 0324 CSI 3120	Discussion
0102	A Shankar TuTh 11:00am - 12:15pm MW 10:00am - 10:50am	Seats (Total: 35) IRB 0324 CSI 3120	Discussion
0103	A Shankar TuTh 11:00am - 12:15pm MW 11:00am - 11:50am	Seats (Total: 32) IRB 0324 CSI 3118	Discussion
0104	A Shankar TuTh 11:00am - 12:15pm MW 12:00pm - 12:50pm	Seats (Total: 35) IRB 0324 CSI 3120	Discussion
0105	A Shankar TuTh 11:00am - 12:15pm MW 1:00pm - 1:50pm	Seats (Total: 35) IRB 0324 CSI 3120	Discussion
0106	A Shankar TuTh 11:00am - 12:15pm MW 2:00pm - 2:50pm	Seats (Total: 35) IRB 0324 CSI 3120	Discussion
0107	A Shankar TuTh 11:00am - 12:15pm MW 3:00pm - 3:50pm	Seats (Total: 35) IRB 0324 CSI 3120	Discussion
0108	A Shankar TuTh 11:00am - 12:15pm MW 4:00pm - 4:50pm	Seats (Total: 35) IRB 0324 CSI 3120	Discussion
0201	Ilchul Yoon TuTh 12:30pm - 1:45pm MW 12:00pm - 12:50pm	Seats (Total: 35) IRB 0324 IRB 2107	Discussion
0202	Ilchul Yoon TuTh 12:30pm - 1:45pm MW 10:00am - 10:50am	Seats (Total: 35) IRB 0324 IRB 2207	Discussion

0203	Ilchul Yoon TuTh 12:30pm - 1:45pm MW 11:00am - 11:50am	Seats (Total: 35) IRB 0324 IRB 2207	Discussion
0204	Ilchul Yoon TuTh 12:30pm - 1:45pm MW 12:00pm - 12:50pm	Seats (Total: 35) IRB 0324 IRB 2207	Discussion
0205	Ilchul Yoon TuTh 12:30pm - 1:45pm MW 1:00pm - 1:50pm	Seats (Total: 35) IRB 0324 IRB 2207	Discussion
0206	Ilchul Yoon TuTh 12:30pm - 1:45pm MW 1:00pm - 1:50pm	Seats (Total: 35) IRB 0324 IRB 2107	Discussion
0207	Ilchul Yoon TuTh 12:30pm - 1:45pm MW 4:00pm - 4:50pm	Seats (Total: 35) IRB 0324 IRB 2107	Discussion
0208	Ilchul Yoon TuTh 12:30pm - 1:45pm MW 4:00pm - 4:50pm	Seats (Total: 35) IRB 0324 IRB 2207	Discussion
0301	Ilchul Yoon TuTh 11:00am - 12:15pm MW 2:00pm - 2:50pm	Seats (Total: 31) CSI 1115 CSI 3118	Discussion
0302	Ilchul Yoon TuTh 11:00am - 12:15pm MW 10:00am - 10:50am	Seats (Total: 29) CSI 1115 CSI 3118	Discussion
0303	Ilchul Yoon TuTh 11:00am - 12:15pm MW 5:00pm - 5:50pm	Seats (Total: 29) CSI 1115 CSI 3118	Discussion
0304	Ilchul Yoon TuTh 11:00am - 12:15pm MW 5:00pm - 5:50pm	Seats (Total: 29) CSI 1115 CSI 3120	Discussion

CMSC250 Discrete Structures

Credits: 4

Grading Method: Regular, Pass-Fail

Prerequisite: Minimum grade of C- in CMSC131; and minimum grade of C- in MATH141. Restriction: Must be in a major within the CMNS-Computer Science department; or must be in Engineering: Computer program; or must be in the Computer Science Minor program. Formerly: CMSC150.

Fundamental mathematical concepts related to computer science, including finite and infinite sets, relations, functions, and propositional logic. Introduction to other techniques, modeling and solving problems in computer science. Introduction to permutations, combinations, graphs, and trees with selected applications.

0101	Iason Filippou TuTh 2:00pm - 3:15pm MW 9:00am - 9:50am	Seats (Total: 10) IRB 0324 CSI 2120	Discussion
0102	Iason Filippou TuTh 2:00pm - 3:15pm MW 10:00am - 10:50am	Seats (Total: 34) IRB 0324 CSI 2120	Discussion
0103	Iason Filippou TuTh 2:00pm - 3:15pm MW 11:00am - 11:50am	Seats (Total: 34) IRB 0324 CSI 2120	Discussion
0104	Iason Filippou TuTh 2:00pm - 3:15pm MW 12:00pm - 12:50pm	Seats (Total: 34) IRB 0324 CSI 2120	Discussion
0105	Iason Filippou TuTh 2:00pm - 3:15pm MW 1:00pm - 1:50pm	Seats (Total: 33) IRB 0324 CSI 2120	Discussion
0106	Iason Filippou TuTh 2:00pm - 3:15pm MW 2:00pm - 2:50pm	Seats (Total: 33) IRB 0324 CSI 2120	Discussion
0107	Iason Filippou TuTh 2:00pm - 3:15pm MW 3:00pm - 3:50pm	Seats (Total: 33) IRB 0324 CSI 2120	Discussion
0108	Iason Filippou TuTh 2:00pm - 3:15pm MW 4:00pm - 4:50pm	Seats (Total: 26) IRB 0324 CSI 2120	Discussion

0201	Iason Filippou TuTh 11:00am - 12:15pm MW 9:00am - 9:50am	Seats (Total: 12) ESJ 0202 CSI 2120	Discussion
0202	Iason Filippou TuTh 11:00am - 12:15pm MW 10:00am - 10:50am	Seats (Total: 15) ESJ 0202 CSI 2118	Discussion
0203	Iason Filippou TuTh 11:00am - 12:15pm MW 11:00am - 11:50am	Seats (Total: 27) ESJ 0202 CSI 2118	Discussion
0204	Iason Filippou TuTh 11:00am - 12:15pm MW 12:00pm - 12:50pm	Seats (Total: 22) ESJ 0202 CSI 2118	Discussion
0205	Iason Filippou TuTh 11:00am - 12:15pm MW 1:00pm - 1:50pm	Seats (Total: 15) ESJ 0202 CSI 2118	Discussion
0206	Iason Filippou TuTh 11:00am - 12:15pm MW 2:00pm - 2:50pm	Seats (Total: 20) ESJ 0202 CSI 2118	Discussion
0207	Iason Filippou TuTh 11:00am - 12:15pm MW 3:00pm - 3:50pm	Seats (Total: 32) ESJ 0202 CSI 2118	Discussion
0208	Iason Filippou TuTh 11:00am - 12:15pm MW 4:00pm - 4:50pm	Seats (Total: 8) ESJ 0202 CSI 2120	Discussion
0301	Iason Filippou TuTh 3:30pm - 4:45pm MW 9:00am - 9:50am	Seats (Total: 5) IRB 0324 CSI 2120	Discussion
0302	Iason Filippou TuTh 3:30pm - 4:45pm MW 10:00am - 10:50am	Seats (Total: 15) IRB 0324 CSI 2118	Discussion

0303	Iason Filippou TuTh 3:30pm - 4:45pm MW 11:00am - 11:50am	Seats (Total: 6) IRB 0324 CSI 2118	Discussion
0304	Iason Filippou TuTh 3:30pm - 4:45pm MW 12:00pm - 12:50pm	Seats (Total: 12) IRB 0324 CSI 2118	Discussion
0305	Iason Filippou TuTh 3:30pm - 4:45pm MW 1:00pm - 1:50pm	Seats (Total: 10) IRB 0324 CSI 2118	Discussion
0306	Iason Filippou TuTh 3:30pm - 4:45pm MW 2:00pm - 2:50pm	Seats (Total: 10) IRB 0324 CSI 2118	Discussion
0307	Iason Filippou TuTh 3:30pm - 4:45pm MW 3:00pm - 3:50pm	Seats (Total: 32) IRB 0324 CSI 3118	Discussion

CMSC298A **Special Topics in Computer Science**

(Perm req)

Credits: 1-4 Grading Method: Sat-Fail

A course designed to allow a lower level student to pursue a specialized topic or project.

Contact department for information to register for this course.

CMSC320 **Introduction to Data Science**

(Perm req)

Credits: 3 Grading Method: Regular, Pass-Fail

Prerequisite: Minimum grade of C- in CMSC216 and CMSC250. Restriction: Permission of CMNS-Computer Science department. Credit only granted for: STAT426 or CMSC320.

An introduction to the data science pipeline, i.e., the end-to-end process of going from unstructured, messy data to knowledge and actionable insights. Provides a broad overview of several topics including statistical data analysis, basic data mining and machine learning algorithms, large-scale data management, cloud computing, and information visualization.

0101	Hector Corrada Bravo MW 5:00pm - 6:15pm	Seats (Total: 291) IRB 0324	

CMSC330 Organization of Programming Languages

Credits: 3 Grading Method: Regular, Pass-Fail

Prerequisite: Minimum grade of C- in CMSC250 and CMSC216. Restriction: Must be in a major within the CMNS-Computer Science department; or must be in the Computer Science Minor program; or must be in Engineering: Computer program.

A study of programming languages, including their syntax, semantics, and implementation. Several different models of languages are discussed, including dynamic, scripting (e.g., Ruby, Python) functional (e.g., OCaml, Haskell, Scheme), and memory safe systems programming (e.g., Rust). Explores language features such as formal syntax, scoping and binding of variables, higher-order programming, typing, and type polymorphism. Introduces finite automata, context free grammar, parsing, lambda calculus, and basics of security attacks and software security.

0101	Anwar Mamat TuTh 2:00pm - 3:15pm F 9:00am - 9:50am	Seats (Total: 37) ESJ 0202 IRB 1207	Discussion
0102	Anwar Mamat TuTh 2:00pm - 3:15pm F 9:00am - 9:50am	Seats (Total: 37) ESJ 0202 IRB 2107	Discussion
0103	Anwar Mamat TuTh 2:00pm - 3:15pm F 10:00am - 10:50am	Seats (Total: 37) ESJ 0202 IRB 1207	Discussion
0104	Anwar Mamat TuTh 2:00pm - 3:15pm F 2:00pm - 2:50pm	Seats (Total: 36) ESJ 0202 IRB 2107	Discussion
0105	Anwar Mamat TuTh 2:00pm - 3:15pm F 11:00am - 11:50am	Seats (Total: 38) ESJ 0202 IRB 1207	Discussion
0106	Anwar Mamat TuTh 2:00pm - 3:15pm F 4:00pm - 4:50pm	Seats (Total: 33) ESJ 0202 IRB 2107	Discussion
0107	Anwar Mamat TuTh 2:00pm - 3:15pm F 12:00pm - 12:50pm	Seats (Total: 39) ESJ 0202 IRB 1207	Discussion

0108	Anwar Mamat TuTh 2:00pm - 3:15pm F 12:00pm - 12:50pm	Seats (Total: 35) ESJ 0202 IRB 2107	 Discussion
0109	Anwar Mamat TuTh 2:00pm - 3:15pm F 1:00pm - 1:50pm	Seats (Total: 37) ESJ 0202 IRB 2107	 Discussion
0201	Roger Eastman TuTh 9:30am - 10:45am F 9:00am - 9:50am	Seats (Total: 34) IRB 0324 IRB 2207	 Discussion
0202	Roger Eastman TuTh 9:30am - 10:45am F 10:00am - 10:50am	Seats (Total: 34) IRB 0324 IRB 2207	 Discussion
0203	Roger Eastman TuTh 9:30am - 10:45am F 4:00pm - 4:50pm	Seats (Total: 34) IRB 0324 IRB 2207	 Discussion
0204	Roger Eastman TuTh 9:30am - 10:45am F 12:00pm - 12:50pm	Seats (Total: 33) IRB 0324 IRB 2207	 Discussion
0205	Roger Eastman TuTh 9:30am - 10:45am F 1:00pm - 1:50pm	Seats (Total: 33) IRB 0324 IRB 2207	 Discussion
0206	Roger Eastman TuTh 9:30am - 10:45am F 2:00pm - 2:50pm	Seats (Total: 31) IRB 0324 IRB 2207	 Discussion
0207	Roger Eastman TuTh 9:30am - 10:45am F 2:00pm - 2:50pm	Seats (Total: 33) IRB 0324 IRB 1207	 Discussion
0208	Roger Eastman TuTh 9:30am - 10:45am F 3:00pm - 3:50pm	Seats (Total: 33) IRB 0324 IRB 2107	 Discussion

0209	Roger Eastman TuTh 9:30am - 10:45am F 3:00pm - 3:50pm	Seats (Total: 33) IRB 0324 IRB 2207	 Discussion

CMSC351 **Algorithms**

Credits: 3 Grading Method: Regular, Pass-Fail

Prerequisite: Minimum grade of C- in CMSC250 and CMSC216. Restriction: Must be in a major within the CMNS-Computer Science department; or must be in Engineering: Computer program; or must be in the Computer Science Minor program. Credit only granted for: CMSC251 or CMSC351. Additional information: CMSC351 may not count as one of the required upper level CMSC courses for students who are required to have 24 upper level CMSC credits for graduation, i.e. for students who became computer science majors prior to Fall, 2002.

A systematic study of the complexity of some elementary algorithms related to sorting, graphs and trees, and combinatorics. Algorithms are analyzed using mathematical techniques to solve recurrences and summations.

0101	Clyde Kruskal MWF 11:00am - 11:50am	Seats (Total: 299) ESJ 0202
0201	Mohammad Nayeem Teli MWF 10:00am - 10:50am	Seats (Total: 290) IRB 0324
0301	Clyde Kruskal MWF 1:00pm - 1:50pm	Seats (Total: 143) CSI 1115

CMSC388J **Special Topics in Computer Science; Building Secure Web Applications with Python and Flask**

(Perm req)

Credits: 1 Grading Method: Regular, Pass-Fail

Seminar courses that allow students to pursue new and emerging areas of Computer Science.

Prerequisites: Minimum grade of C- in CMSC250 and CMSC216. Students are introduced to building secure, full-stack web applications with Python and Flask. Different types of security vulnerabilities and best practices to patch in students own applications will be examined.

0101	Michael Marsh Tu 5:00pm - 5:50pm	Seats (Total: 30) HBK 1112

CMSC388L **Special Topics in Computer Science; Readings in HCI Research**

(Perm req)

Credits: 1

Grading Method: Regular, Pass-Fail

Seminar courses that allow students to pursue new and emerging areas of Computer Science.

Prerequisites: Minimum grade of C- in CMSC250 and CMSC216. Students are introduced to research from the premier international conference of Human Computer Interaction, ACM CHI.

0101	Evan Golub	Seats (Total: 30)
	F 12:00pm - 12:50pm	EGR 0135

CMSC388M **Special Topics in Computer Science; Introduction to Mobile XR**

(Perm req)

Credits: 1

Grading Method: Regular, Pass-Fail

Seminar courses that allow students to pursue new and emerging areas of Computer Science.

Prerequisites: Minimum grade of C- in CMSC250 and CMSC216. Students will explore the basics of smartphone-based augmented and virtual reality. Focus is placed on development of XR apps with Unity as well as the hardware, mathematics, physics, algorithms, best practices, and principles that make immersive experiences possible.

0101	Roger Eastman	Seats (Total: 30)
	F 1:00pm - 1:50pm	ESJ B0322

CMSC389E **Special Topics in Computer Science; Digital Logic Design through Minecraft**

(Perm req)

Credits: 1

Grading Method: Regular, Pass-Fail

Seminar courses that allow students to pursue new and emerging areas of Computer Science; course may be used as electives for the undergraduate degree and minor.

Prerequisites: Must have completed or be concurrently enrolled in (CMSC216 & CMSC250); or ENEE244; and permission of CMNS-Computer Science department. Explores the fundamentals of digital logic design using Minecraft's Redstone. Using the low-level and intuitive visualization of circuitry Redstone provides, you will create a series of projects that apply principles of digital logic design learned in class.

0101	Alexander Brassel	Seats (Total: 30)
	F 2:00pm - 2:50pm	ESJ B0320

CMSC389K **Special Topics in Computer Science; Full-stack Web Development with Node.js**

(Perm req)

Credits: 1

Grading Method: Regular, Pass-Fail

Seminar courses that allow students to pursue new and emerging areas of Computer Science; course may be used as electives for the undergraduate degree and minor.

Prerequisites: Minimum grade of C- in CMSC250 and CMSC216.

0101	John Dickerson F 11:00am - 11:50am	Seats (Total: 35) SYM 0215
0201	John Dickerson F 2:00pm - 2:50pm	Seats (Total: 35) SYM 0215

CMSC389N **Special Topics in Computer Science; Introduction to PHP & Javascript**

(Perm req)

Credits: 3 Grading Method: Regular, Pass-Fail

Seminar courses that allow students to pursue new and emerging areas of Computer Science; course may be used as electives for the undergraduate degree and minor.

Prerequisite: Minimum grade of C- in CMSC250 and CMSC216; and permission of CMNS-Computer Science department.

0101	Elias Gonzalez MW 3:30pm - 4:45pm *Pre-requisite: C- or better in CMSC216 and CMSC250.*	Seats (Total: 95) IRB 0318

CMSC389O **Special Topics in Computer Science; The Coding Interview**

(Perm req)

Credits: 1 Grading Method: Regular, Pass-Fail

Seminar courses that allow students to pursue new and emerging areas of Computer Science; course may be used as electives for the undergraduate degree and minor.

Prerequisites: Minimum grade of C- in CMSC250 and CMSC216; and permission of the Computer Science department. Students will be provided with a comprehensive, practical introduction to technical interviews. Starting with basic topics such as Big O and String Manipulation. We will then move into more complex topics such a Bit Manipulation and Dynamic Programming. Most of the classes will be "In-Class Interviews" and take-home assignments will simulate real interview settings.

0101	Thomas Goldstein F 11:00am - 11:50am	Seats (Total: 30) ESJ B0320
0201	Thomas Goldstein F 2:00pm - 2:50pm	Seats (Total: 30) HBK 0105

0301	Thomas Goldstein F 11:00am - 11:50am	Seats (Total: 30) ESJ B0322
0401	Thomas Goldstein F 12:00pm - 12:50pm	Seats (Total: 30) ESJ 1309
0501	Thomas Goldstein F 1:00pm - 1:50pm	Seats (Total: 30) ESJ 1309

CMSC389V **Special Topics in Computer Science; Ethics of Artificial Intelligence and Machine Learning**

(Perm req)

Credits: 1 Grading Method: Regular, Pass-Fail

Seminar courses that allow students to pursue new and emerging areas of Computer Science; course may be used as electives for the undergraduate degree and minor.

Prerequisites: Minimum grade of C- in CMSC250 and CMSC216.

0101	John Dickerson F 1:00pm - 1:50pm	Seats (Total: 31) MTH 0101

CMSC389W **Special Topics in Computer Science; STIC: Visualization Through Mathematica**

(Perm req)

Credits: 1 Grading Method: Regular, Pass-Fail

Seminar courses that allow students to pursue new and emerging areas of Computer Science; course may be used as electives for the undergraduate degree and minor.

Prerequisites: MATH140 and MATH141 (or equivalent). A comprehensive course on the technical computing language Mathematica, starting with basics including plotting, computation, 3D modeling, and interactive output. The last weeks focus on advanced topics including parallelization, evaluation control, precomputation, and advanced dynamic functionality. The course culminates in personalized final projects on a topic of each student's choice - application vary from physics to finance to nueroscience and more.

0101	Iason Filippou F 1:00pm - 1:50pm	Seats (Total: 35) EGR 3106

CMSC390 **Honors Paper**

(Perm req)

Credits: 3 Grading Method: Regular, Pass-Fail

Restriction: Must be admitted to the Computer Science Honors Program.

Special study or research directed toward preparation of honors paper.

Contact department for information to register for this course.

CMSC396H **Computer Science Honors Seminar**

(Perm req)

Credits: 1 Grading Method: Regular, Pass-Fail

Prerequisite: Must have admission into Computer Science Departmental Honors Program. Restriction: Permission of CMNS-Computer Science department. Credit only granted for: CMSC297 or CMSC396. Formerly: CMSC297.

Overview of computer science research activities, techniques, and tools. Diverse research areas will be covered, including systems, networks, artificial intelligence, human-computer interaction, software engineering, graphics, vision, and theory.

0101	David Levin	Seats (Total: 30)
	Tu 1:00pm - 1:50pm	IRB 2207

CMSC411 **Computer Systems Architecture**

(Perm req)

Credits: 3 Grading Method: Regular, Pass-Fail

Prerequisite: Minimum grade of C- in CMSC330; or must be in the (Computer Science (Doctoral), Computer Science (Master's)) program. Restriction: Permission of CMNS-Computer Science department. Credit only granted for: ENEE446 or CMSC411.

Input/output processors and techniques. Intra-system communication, buses, caches. Addressing and memory hierarchies. Microprogramming, parallelism, and pipelining.

0101	Michelle Hugue	Seats (Total: 185)
	Class time/details on ELMs	ONLINE

CMSC412 **Operating Systems**

(Perm req)

Credits: 4 Grading Method: Regular, Pass-Fail CORE: CS

Prerequisite: Minimum grade of C- in CMSC330 and CMSC351; and 1 course with a minimum grade of C- from (CMSC414, CMSC417, CMSC420, CMSC430, CMSC433, CMSC435, ENEE440, ENEE457). Restriction: Permission of CMNS-Computer Science department; or must be in one of the following programs (Computer Science (Master's); Computer Science (Doctoral)). Credit only granted for: CMSC412 or ENEE447.

A hands-on introduction to operating systems, including topics in: multiprogramming, communication and synchronization, memory management, IO subsystems, and resource scheduling polices. The laboratory component consists of constructing a small kernel, including functions for device IO, multi-tasking, and memory management.

0101	Ashok Agrawala TuTh 2:00pm - 3:15pm MW 10:00am - 10:50am	Seats (Total: 35) CSI 2117 IRB 1207	 Discussion
0102	Ashok Agrawala TuTh 2:00pm - 3:15pm MW 11:00am - 11:50am	Seats (Total: 35) CSI 2117 IRB 2107	 Discussion

CMSC414 **Computer and Network Security**

(Perm req)

Credits: 3 Grading Method: Regular, Pass-Fail

Prerequisite: Minimum grade of C- in CMSC330 and CMSC351; or must be in the (Computer Science (Doctoral), Computer Science (Master's)) program. Restriction: Permission of CMNS-Computer Science department. Credit only granted for: CMSC414, ENEE459C, or ENEE457.

An introduction to the topic of security in the context of computer systems and networks. Identify, analyze, and solve network-related security problems in computer systems. Fundamentals of number theory, authentication, and encryption technologies, as well as the practical problems that have to be solved in order to make those technologies workable in a networked environment, particularly in the wide-area Internet environment.

0101	Michael Marsh TuTh 2:00pm - 3:15pm	Seats (Total: 94) IRB 1116
0201	David Levin TuTh 3:30pm - 4:45pm	Seats (Total: 97) IRB 0318

CMSC417 **Computer Networks**

(Perm req)

Credits: 3 Grading Method: Regular, Pass-Fail

Prerequisite: Minimum grade of C- in CMSC351 and CMSC330; and permission of CMNS-Computer Science department. Or must be in the (Computer Science (Doctoral), Computer Science (Master's)) program.

Computer networks and architectures. The OSI model including discussion and examples of various network layers. A general introduction to existing network protocols. Communication protocol specification, analysis, and testing.

0101	Nirupam Roy TuTh 2:00pm - 3:15pm	Seats (Total: 127) CSI 1115

CMSC420 **Advanced Data Structures**

(Perm req)

Credits: 3 Grading Method: Regular, Pass-Fail

Prerequisite: Minimum grade of C- in CMSC351 and CMSC330; and permission of CMNS-Computer Science department. Or must be in the (Computer Science (Doctoral), Computer Science (Master's)) program.

Description, properties, and storage allocation functions of data structures including balanced binary trees, B-Trees, hash tables, skiplists, tries, KD-Trees and Quadtrees. Algorithms for manipulating structures. Applications from areas such as String Processing, Computer Graphics, Information Retrieval, Computer Networks, Computer Vision, and Operating Systems.

0101	Michael Marsh TuTh 12:30pm - 1:45pm	Seats (Total: 170) JMZ 0220
0301	Michael Marsh TuTh 3:30pm - 4:45pm	Seats (Total: 140) CSI 1115

CMSC421 **Introduction to Artificial Intelligence**

(Perm req)

Credits: 3 Grading Method: Regular, Pass-Fail

Prerequisite: Minimum grade of C- in CMSC351 and CMSC330; and permission of CMNS-Computer Science department. Or must be in the (Computer Science (Doctoral), Computer Science (Master's)) program.

Introduces a range of ideas and methods in AI, varying semester to semester but chosen largely from: automated heuristic search, planning, games, knowledge representation, logical and statistical inference, learning, natural language processing, vision, robotics, cognitive modeling, and intelligent agents. Programming projects will help students obtain a hands-on feel for various topics.

0101	Pratap Tokekar TuTh 9:30am - 10:45am	Seats (Total: 96) IRB 1116

CMSC422 **Introduction to Machine Learning**

(Perm req)

Credits: 3 Grading Method: Regular, Pass-Fail

Prerequisite: Minimum grade of C- in CMSC320, CMSC330, and CMSC351; and 1 course with a minimum grade of C- from (MATH240, MATH461); and permission of CMNS-Computer Science department.

Machine Learning studies representations and algorithms that allow machines to improve their performance on a task from experience. This is a broad overview of existing methods for machine learning and an introduction to adaptive systems in general. Emphasis is given to practical aspects of machine learning and data mining.

Credit only granted for CMSC422 or CMSC498M.

0101	James Reggia TuTh 12:30pm - 1:45pm	Seats (Total: 100) PLS 1140
0201	Soheil Feizi TuTh 3:30pm - 4:45pm	Seats (Total: 95) IRB 1116

CMSC423 **Bioinformatic Algorithms, Databases, and Tools**

(Perm req)

Credits: 3 Grading Method: Regular, Pass-Fail

Prerequisite: Minimum grade of C- in CMSC351 and CMSC330; and permission of CMNS-Computer Science department. Or must be in the (Computer Science (Doctoral), Computer Science (Master's)) program.

An introduction to the main algorithms, databases, and tools used in bioinformatics. Topics may include assembly and analysis of genome sequences, reconstructing evolutionary histories, predicting protein structure, and clustering of biological data. Use of scripting languages to perform analysis tasks on biological data. No prior knowledge of biology is assumed.

0101	Robert Patro TuTh 11:00am - 12:15pm	Seats (Total: 95) IRB 0318

CMSC424 **Database Design**

(Perm req)

Credits: 3 Grading Method: Regular, Pass-Fail CORE: CS

Prerequisite: Minimum grade of C- in CMSC351 and CMSC330; and permission of CMNS-Computer Science department. Or must be in the (Computer Science (Doctoral), Computer Science (Master's)) program.

Students are introduced to database systems and motivates the database approach as a mechanism for modeling the real world. An in-depth coverage of the relational model, logical database design, query languages, and other database concepts including query optimization, concurrency control; transaction management, and log based crash recovery. Distributed and Web database architectures are also discussed.

0101	Amol Deshpande MW 2:00pm - 3:15pm	Seats (Total: 155) ESJ 2208

CMSC425 **Game Programming**

(Perm req)

Credits: 3 Grading Method: Regular, Pass-Fail

Prerequisite: Minimum grade of C- in CMSC420.

An introduction to the principles and practice of computer game programming and design. This includes an introduction to game hardware and systems, the principles of game design, object and terrain modeling, game physics, artificial intelligence for games, networking for games, rendering and animation, and aural rendering. Course topics are reinforced through the design and implementation of a working computer game.

0101	Roger Eastman TuTh 12:30pm - 1:45pm	Seats (Total: 90) IRB 1116

CMSC426 **Computer Vision**

(Perm req)

Credits: 3 Grading Method: Regular, Pass-Fail

Prerequisite: Minimum grade of C- in CMSC330 and CMSC351; or must be in the (Computer Science (Doctoral), Computer Science (Master's)) program. Restriction: Permission of CMNS-Computer Science department.

An introduction to basic concepts and techniques in computervision. This includes low-level operations such as image filtering and edge detection, 3D reconstruction of scenes using stereo and structure from motion, and object detection, recognition and classification.

0101	Carlos Castillo TuTh 3:30pm - 4:45pm	Seats (Total: 85) CSI 3117
0201	Mohammad Nayeem Teli TuTh 11:00am - 12:15pm	Seats (Total: 45) CSI 1121

CMSC430 **Introduction to Compilers**

Credits: 3

Grading Method: Regular, Pass-Fail

Prerequisite: Minimum grade of C- in CMSC330 and CMSC351; and permission of CMNS-Computer Science department. Or must be in the (Computer Science (Doctoral), Computer Science (Master's)) program.

Topics include lexical analysis, parsing, intermediate representations, program analysis, optimization, and code generation.

0101	Jose Calderon	Seats (Total: 88)
	TuTh 9:30am - 10:45am	CSI 2117

CMSC433 **Programming Language Technologies and Paradigms**

(Perm req)

Credits: 3

Grading Method: Regular, Pass-Fail

Prerequisite: Minimum grade of C- in CMSC330; or must be in the (Computer Science (Doctoral), Computer Science (Master's)) program. Restriction: Permission of CMNS-Computer Science department.

Programming language technologies (e.g., object-oriented programming), their implementations and use in software design and implementation.

0101	Anwar Mamat	Seats (Total: 150)
	TuTh 3:30pm - 4:45pm	ESJ 2204

CMSC434 **Introduction to Human-Computer Interaction**

(Perm req)

Credits: 3

Grading Method: Regular, Pass-Fail

Prerequisite: Minimum grade of C- in CMSC330 and CMSC351; and permission of CMNS-Computer Science department. Or must be in the (Computer Science (Doctoral), Computer Science (Master's)) program.

Assess usability by quantitative and qualitative methods. Conduct task analyses, usability tests, expert reviews, and continuing assessments of working products by interviews, surveys, and logging. Apply design processes and guidelines to develop professional quality user interfaces. Build low-fidelity paper mockups, and a high-fidelity prototype using contemporary tools such as graphic editors and a graphical programming environment (eg: Visual Basic, Java).

0101	Evan Golub	Seats (Total: 54)
	TuTh 12:30pm - 1:45pm	IRB 1207

0201	Evan Golub TuTh 11:00am - 12:15pm	Seats (Total: 54) IRB 1207
0301	Scott Gilkeson TuTh 5:00pm - 6:15pm	Seats (Total: 50) IRB 1207

CMSC435 **Software Engineering**

(Perm req)

Credits: 3 Grading Method: Regular, Pass-Fail CORE: CS

Prerequisite: 1 course with a minimum grade of C- from (CMSC412, CMSC417, CMSC420, CMSC430, CMSC433); and permission of CMNS-Computer Science department. Or must be in the (Computer Science (Doctoral), Computer Science (Master's)) program.

State-of-the-art techniques in software design and development. Laboratory experience in applying the techniques covered. Structured design, structured programming, top-down design and development, segmentation and modularization techniques, iterative enhancement, design and code inspection techniques, correctness, and chief-programmer teams. The development of a large software project.

0101	James Purtilo TuTh 2:00pm - 3:15pm	Seats (Total: 48) CSI 1121
0201	Garrett Vanhoy TuTh 9:30am - 10:45am	Seats (Total: 48) IRB 2107

CMSC436 **Programming Handheld Systems**

(Perm req)

Credits: 3 Grading Method: Regular, Pass-Fail

Prerequisite: Minimum grade of C- in CMSC330 and CMSC351; or must be in the (Computer Science (Doctoral), Computer Science (Master's)) program. Restriction: Permission of CMNS-Computer Science department.

Fundamental principles and concepts that underlie the programming of handheld systems, such as mobile phones, personal digital assistants, and tablet computers. Particular emphasis will be placed on concepts such as limited display size, power, memory and CPU speed; and new input modalities, where handheld systems differ substantially from non-handheld systems, and thus require special programming tools and approaches. Students will apply these concepts and principles in the context of an existing handset programming platform.

Course will be based on the iOS platform. Students must have access to a Macintosh computer to participate in this course.

0101	Peter Keleher	Seats (Total: 150)
	TuTh 3:30pm - 4:45pm	ESJ 0224

CMSC451 **Design and Analysis of Computer Algorithms**

(Perm req)

Credits: 3 Grading Method: Regular, Pass-Fail

Prerequisite: Minimum grade of C- in CMSC351; and permission of CMNS-Computer Science department. Or must be in the (Computer Science (Doctoral), Computer Science (Master's)) program.

Fundamental techniques for designing efficient computer algorithms, proving their correctness, and analyzing their complexity. General topics include graph algorithms, basic algorithm design paradigms (such as greedy algorithms, divide-and-conquer, and dynamic programming), network flows, NP-completeness, and other selected topics in algorithms.

0101	Clyde Kruskal	Seats (Total: 135)
	TuTh 12:30pm - 1:45pm	CSI 1115

CMSC452 **Elementary Theory of Computation**

(Perm req)

Credits: 3 Grading Method: Regular, Pass-Fail

Prerequisite: Minimum grade of C- in CMSC351; and permission of CMNS-Computer Science department. Or must be in the (Computer Science (Doctoral), Computer Science (Master's)) program.

Techniques are developed to determine the difficulty of a problem relative to a model of computation. Topics include Finite Automata, P, NP, decidability, undecidability, and communication complexity.

0101	William Gasarch	Seats (Total: 45)
	TuTh 11:00am - 12:15pm	CSI 2107

CMSC454 **Algorithms for Data Science**

(Perm req)

Credits: 3 Grading Method: Regular, Pass-Fail

Prerequisite: Minimum grade of C- in CMSC320, CMSC330, and CMSC351; and 1 course with a minimum grade of C- from (STAT400, STAT410); and permission of CMNS-Computer Science department. Credit only granted for: CMSC454 or CMSC498U. Formerly: CMSC498U.

Fundamental methods for processing a high volume of data. Methods include stream processing, locally sensitive hashing, web search methods, page rank computation, network and link analysis, dynamic graph algorithms as well as methods to handle high dimensional data/dimensionality reduction.

0101	David Harris TuTh 5:00pm - 6:15pm	Seats (Total: 40) ESJ 2309

CMSC456 **Cryptography**

(Perm req)

Credits: 3 Grading Method: Regular, Pass-Fail

Prerequisite: (CMSC106, CMSC131, or ENEE150; or equivalent programming experience); and (2 courses from (CMSC330, CMSC351, ENEE324, or ENEE380); or any one of these courses and a 400-level MATH course, or two 400-level MATH courses). Or permission of instructor. Also offered as: MATH456, ENEE456. Credit only granted for: MATH456, CMSC456, or ENEE456.

The theory, application, and implementation of mathematical techniques used to secure modern communications. Topics include symmetric and public-key encryption, message integrity, hash functions, block-cipher design and analysis, number theory, and digital signatures.

0101	Nathan Manning MWF 11:00am - 11:50am	Seats (Total: 75) CSI 3117
0201	Gorjan Alagic TuTh 2:00pm - 3:15pm	Seats (Total: 60) IRB 0318
0301	Dana Dachman-Soled MW 2:00pm - 3:15pm	Seats (Total: 60) CSI 3117

CMSC457 **Introduction to Quantum Computing**

(Perm req)

Credits: 3 Grading Method: Regular, Pass-Fail

Prerequisite: 1 course with a minimum grade of C- from (MATH240, PHYS274); and 1 course with a minimum grade of C- from (CMSC351, PHYS373). Restriction: Permission of CMNS-Computer Science department. Additional information: No previous background in quantum mechanics is required.

An introduction to the concept of a quantum computer, including algorithms that outperform classical computation and methods for performing quantum computation reliably in the presence of noise. As this is a multidisciplinary subject, the course will cover basic concepts in theoretical computer science and physics in addition to introducing core quantum computing topics.

Cross-listed with PHYS457. Credit only granted for CMSC457 or PHYS457.

0101	Xiaodi Wu MW 2:00pm - 3:15pm	Seats (Total: 40) IRB 1116

CMSC460 **Computational Methods**

(Perm req)

Credits: 3 Grading Method: Regular, Pass-Fail

Prerequisite: 1 course with a minimum grade of C- from (MATH240, MATH341, MATH461); and 1 course with a minimum grade of C- from (MATH241, MATH340); and 1 course with a minimum grade of C- from (CMSC106, CMSC131); and minimum grade of C- in MATH246. Also offered as: AMSC460. Credit only granted for: AMSC460, AMSC466, CMSC460, or CMSC466.

Basic computational methods for interpolation, least squares, approximation, numerical quadrature, numerical solution of polynomial and transcendental equations, systems of linear equations and initial value problems for ordinary differential equations. Emphasis on methods and their computational properties rather than their analytic aspects. Intended primarily for students in the physical and engineering sciences.

0101	Jonathan Rosenberg MWF 10:00am - 10:50am	Seats (Total: 32) CHM 2201
0201	Ruiwen Shu TuTh 9:30am - 10:45am	Seats (Total: 32) PHY 0405
0301	Vladimir Yushutin TuTh 12:30pm - 1:45pm	Seats (Total: 32) MTH 0303
0401	Vladimir Yushutin TuTh 2:00pm - 3:15pm	Seats (Total: 32) PHY 1219

CMSC466 **Introduction to Numerical Analysis I**

(Perm req)

Credits: 3 Grading Method: Regular, Pass-Fail

Prerequisite: 1 course with a minimum grade of C- from (MATH240, MATH341, MATH461); and 1 course with a minimum grade of C- from (MATH241, MATH340); and 1 course with a minimum grade of C- from (CMSC106, CMSC131); and minimum grade of C- in MATH410. Also offered as: AMSC466. Credit only granted for: AMSC460, CMSC460, AMSC466, or CMSC466.

Floating point computations, direct methods for linear systems, interpolation, solution of nonlinear equations.

0101	Maria Cameron TuTh 9:30am - 10:45am	Seats (Total: 25) BPS 1234

CMSC470 **Introduction to Natural Language Processing**

(Perm req)

Credits: 3

Grading Method: Regular, Pass-Fail

Prerequisite: Minimum grade of C- in CMSC320, CMSC330, and CMSC351; and 1 course with a minimum grade of C- from (MATH240, MATH461). Restriction: Permission of CMNS-Computer Science department.

Introduction to fundamental techniques for automatically processing and generating natural language with computers. Machine learning techniques, models, and algorithms that enable computers to deal with the ambiguity and implicit structure of natural language. Application of these techniques in a series of assignments designed to address a core application such as question answering or machine translation.

0101	C Rytting	Seats (Total: 30)
	TuTh 2:00pm - 3:15pm	CSI 1122

CMSC475 **Combinatorics and Graph Theory**

(Perm req)

Credits: 3

Grading Method: Regular, Pass-Fail

Prerequisite: 1 course with a minimum grade of C- from (MATH240, MATH341, MATH461); and 1 course with a minimum grade of C- from (MATH241, MATH340). And permission of CMNS-Computer Science department; or permission of CMNS-Mathematics department. Cross-listed with MATH475 .

General enumeration methods, difference equations, generating functions. Elements of graph theory, matrix representations of graphs, applications of graph theory to transport networks, matching theory and graphical algorithms.

0101	Roohollah Ebrahimian	Seats (Total: 25)
	MWF 1:00pm - 1:50pm	MTH 0201

CMSC498A **Selected Topics in Computer Science**

(Perm req)

Credits: 1-3

Grading Method: Regular, Pass-Fail

An individualized course designed to allow a student or students to pursue a selected topic not taught as a part of the regular course offerings under the supervision of a Computer Science faculty member. In addition, courses dealing with topics of special interest and/or new emerging areas of computer science will be offered with this number. Selected topics courses will be structured very much like a regular course with homework, project and exams. Credit according to work completed

Contact department for information to register for this course.

CMSC498L **Selected Topics in Computer Science; Introduction to Deep Learning**

(Perm req)

Credits: 3

Grading Method: Regular, Pass-Fail

An individualized course designed to allow a student or students to pursue a selected topic not taught as a part of the regular course offerings under the supervision of a Computer Science faculty member. In addition, courses dealing with topics of special interest and/or new emerging areas of computer science will be offered with this number. Selected topics courses will be structured very much like a regular course with homework, project and exams. Credit according to work completed

Prerequisite: Minimum grade of C- in CMSC330 and CMSC351; and 1 course with a minimum grade of C- from (MATH240, MATH461); and permission of CMNS-Computer Science department. Or must be in (Computer Science (Doctoral), ComputerScience (Master's) program.

0101	Abhinav Shrivastava	Seats (Total: 100)
	TuTh 2:00pm - 3:15pm	ESJ 2204

CMSC498N **Selected Topics in Computer Science; Digital Media, Performance and Interactivity**

(Perm req)

Credits: 3

Grading Method: Regular, Pass-Fail

An individualized course designed to allow a student or students to pursue a selected topic not taught as a part of the regular course offerings under the supervision of a Computer Science faculty member. In addition, courses dealing with topics of special interest and/or new emerging areas of computer science will be offered with this number. Selected topics courses will be structured very much like a regular course with homework, project and exams. Credit according to work completed

Shared with ARTT489M 0101 Prerequisite: Minimum grade of C- in CMSC330 and CMSC351; permission of the instructor Studio-based course focusing on the theory, practice and creation of physically interactive immersive media experiences. Course explores the integration of technology and artistic performance, including methods and processes for computationally engaged audio/visual performances that enable artists to interact with responsive elements of the environment through smart textiles, visual body-tracking and gestural sensors, audio sampling and analysis, and other interactive modalities that drive media architectures for performance venues such visual projection mapping, mechatronic devices, and algorithmic music.

0101	Roger Eastman	Seats (Total: 7)
	TuTh 3:00pm - 5:30pm	ASY 3304

CMSC498O **Selected Topics in Computer Science; Introduction to Data Visualization**

(Perm req)

Credits: 3

Grading Method: Regular, Pass-Fail

An individualized course designed to allow a student or students to pursue a selected topic not taught as a part of the regular course offerings under the supervision of a Computer Science faculty member. In addition, courses dealing with topics of special interest and/or new emerging areas of computer science will be offered with this number. Selected topics courses will be structured very much like a regular course with homework, project and exams. Credit according to work completed

Prerequisite: Minimum gra de of C- in CMSC330 and CMSC351; and permission of CMNS-Computer Science department. Or must be in Computer Science (Doctoral), Computer Scienc e (Master's) program.

0101	Leilani Battle	Seats (Total: 48)
	TuTh 11:00am - 12:15pm	CSI 1122

CMSC498Q **Selected Topics in Computer Science; Algorithms for Geospatial Computing**

(Perm req)

Credits: 3

Grading Method: Regular, Pass-Fail, Audit

An individualized course designed to allow a student or students to pursue a selected topic not taught as a part of the regular course offerings under the supervision of a Computer Science faculty member. In addition, courses dealing with topics of special interest and/or new emerging areas of computer science will be offered with this number. Selected topics courses will be structured very much like a regular course with homework, project and exams. Credit according to work completed

Cross-listed with GEOG498I and GEOG788I. Credit only granted for GEOG498I, CMSC498Q, or GEOG788I. Geometric primitives and algorithms for discrete and continuous spatial data processing. Point data representation and analysis: spatial data structures, neighbor finding and range queries, clustering algorithms. Terrain modeling: grids and triangle meshes, algorithms and data structures for building and querying triangulated terrain models. Terrain analysis: segmentation through watershed computation, algorithms for visibility computation. Applications to LiDAR data processing and analysis for terrain reconstruction, urban modeling, forest management and coastal areas modeling. Algorithms for road network analysis and reconstruction from GPS and satellite images.

0101	Rachel Berndtson, Leila De Floriani	Seats (Total: 24)
	TuTh 12:30pm - 1:45pm	LEF 1158

CMSC499A **Independent Undergraduate Research**

(Perm req)

Credits: 1-3

Grading Method: Regular, Pass-Fail

Students are provided with an opportunity to participate in a computer science research project under the guidance of a faculty advisor. Format varies. Students and supervising faculty member will agree to a research plan which must be approved by the department. As part of each research plan, students should produce a final paper delineating their contribution to the field.

Contact department for information to register for this course.

CMSC661 **Scientific Computing II**

(Perm req)

Credits: 3

Grading Method: Regular, Sat-Fail

Prerequisite: Must have knowledge of C or Fortran. And CMSC466, AMSC466, AMSC460, or CMSC460; or (must have knowledge of basic numerical analysis (linear equations, nonlinear equations, integration, interpolation); and permission of instructor). Cross-listed with AMSC66 1. Credit only granted for: AMSC661 or CMSC661.

Fourier and wavelet transform methods, numerical methods for elliptic partial differential equations, numerical linear algebra for sparse matrices, Finite element methods, numerical methods for time dependent partial differential equations. Techniques for scientific computation with an introduction to the theory and software for each topic. Course is part of a two course sequence (660 and 661), but can be taken independently.

0101	Lise-Marie Imbert-Gerard	Seats (Total: 22)
	TuTh 9:30am - 10:45am	PHY 1219

CMSC664 **Advanced Scientific Computing II**

(Perm req)

Credits: 3

Grading Method: Regular, Sat-Fail

Prerequisite: AMSC663 or CMSC663. Restriction: Permission of instructor. Cross-listed with AMSC664. Credit only granted for: AMSC664 or CMSC664.

In the sequence Advanced Scientific Computing I & Advanced Scientific Computing II, (AMSC663/CMSC663 and AMSC664/CMSC664, respectively) students work on a year-long individual project to develop software for a scientific task in a high performance computing environment. Lectures will be given on available computational environments, code development, implementation of parallel algorithms.

0101	Jacob Bedrossian, Maria Cameron	Seats (Total: 20)
	TuTh 11:00am - 12:15pm	ATL 1114

CMSC711 **Computer Networks**

Credits: 3

Grading Method: Regular, Audit, Sat-Fail

Prerequisite: CMSC412; or students who have taken courses with comparable content may contact the department.

Priciples, design, and performance evaluation of computer networks. Network architectures including the ISO model and local area networks (LANs). Communication protocols and network topology.

0101	Samrat Bhattacharjee	Seats (Total: 30)
	TuTh 12:30pm - 1:45pm	CSI 2107

CMSC722 **Artificial Intelligence Planning**

Credits: 3 Grading Method: Regular, Audit, Sat-Fail

Prerequisite: CMSC421; or students who have taken courses with comparable content may contact the department; or permission of CMNS-Computer Science department.

Automated planning of actions to accomplish some desired goals. Basic algorithms, important systems, and new directions in the field of artificial intelligence planning systems.

0101	Dana Nau	Seats (Total: 45)
	TuTh 2:00pm - 3:15pm	IRB 2107

CMSC733 **Computer Processing of Pictorial Information**

Credits: 3 Grading Method: Regular, Audit, Sat-Fail

Prerequisite: CMSC420.

Input, output, and storage of pictorial information. Pictures as information sources, efficient encoding, sampling, quantization, approximation. Position-invariant operations on pictures, digital and optical implementations, the pax language, applications to matched and spatial frequency filtering. Picture quality, image enhancement and image restoration. Picture properties and pictorial pattern recognition. Processing of complex pictures; figure extraction, properties of figures. Data structures for pictures description and manipulation; picture languages. Graphics systems for alphanumeric and other symbols, line drawings of two- and three-dimensional objects, cartoons and movies.

0101	John Aloimonos	Seats (Total: 47)
	TuTh 2:00pm - 3:15pm	CSI 2107

CMSC740 **Advanced Computer Graphics**

Credits: 3 Grading Method: Regular, Audit, Sat-Fail

Prerequisite: MATH240 and CMSC420; or permission of instructor.

An introduction to the principles of computer graphics. Includes an introduction to graphics displays and systems, introduction to the mathematics of affine and projective transformations, perspective, curve and surface modeling, algorithms for hidden-surface removal, color models, methods for modeling illumination, shading, and reflection.

0101	Matthias Zwicker	Seats (Total: 45)
	TuTh 3:30pm - 4:45pm	IRB 2207

CMSC751 **Parallel Algorithms**

Credits: 3 Grading Method: Regular, Audit, Sat-Fail

Prerequisite: CMSC451; or ENEE641; or students who have taken courses with comparable content may contact the department. Jointly offered wit h ENEE651. Credit only granted for: ENEE651, ENEE759K or CMSC751.

A presentation of the theory of parallel computers and parallel processing. Models of parallel processing and the relationships between these models. Techniques for the design and analysis of efficient parallel algorithms including parallel prefix, searching, sorting, graph problems, and algebraic problems. Theoretical limits of parallelism.

0101	Uzi Vishkin	Seats (Total: 30)
	TuTh 2:00pm - 3:15pm	IRB 1207

CMSC754 **Computational Geometry**

Credits: 3 Grading Method: Regular, Audit, Sat-Fail

Prerequisite: CMSC451 and CMSC420; or permission of instructor.

Introduction to algorithms and data structures for computational problems in discrete geometry (for points, lines, and polygons) primarily in two and three dimensions. Topics include triangulations and planar subdivisions, geometric search and intersection, convex hulls, Voronoi diagrams, Delaunay triangulations, line arrangements, visibility, and motion planning.

0101	Dave Mount	Seats (Total: 70)
	TuTh 9:30am - 10:45am	EGR 0108

CMSC764 **Advanced Numerical Optimization**

Credits: 3 Grading Method: Regular, Audit, Sat-Fail

Prerequisite: MATH410; or permission of instructor. Jointly offered wit h AMSC607. Credit only granted for: AMSC607 or CMSC764. Formerly: CMSC878O.

Modern numerical methods for solving unconstrained and constrained nonlinear optimization problems in finite dimensions. Design of computational algorithms and the analysis of their properties.

0101	Thomas Goldstein	Seats (Total: 100)
	TuTh 11:00am - 12:15pm	EGR 1202

CMSC773 **Computational Linguistics II**

Credits: 3 Grading Method: Regular, Audit, Sat-Fail

Prerequisite: CMSC723, INST735, or LING723; or permission of instructor. Cross-listed with LING773, INST736. Credit only granted for: CMSC773, LING773, or INST736. Additional information: CMSC students may only receive PhD Comp. credit for CMSC723 or CMSC823, not both.

Natural language processing with a focus on corpus-based statistical techniques. Topics inlcude: stochastic language modeling, smoothing, noisy channel models, probabilistic grammars and parsing; lexical acquisition, similarity-based methods, word sense disambiguation, statistical methods in NLP applications; system evaluation.

0101	Philip Resnik	Seats (Total: 30)
	W 2:00pm - 4:30pm	PHY 1402

CMSC798 **Master's Non-Thesis Research**

(Perm req)

Credits: 1-3 Grading Method: Regular, Sat-Fail

Contact department for information to register for this course.

CMSC799 **Master's Thesis Research**

(Perm req)

Credits: 1-6 Grading Method: Sat-Fail

Contact department for information to register for this course.

CMSC800 **How to Conduct Great Research**

Credits: 1 Grading Method: Sat-Fail, Audit

Restriction: PhD - CMSC. Credit only granted for: CMSC798F or CMSC800. Formerly: CMSC798F.

Develop research skills so as to promote high quality and high impact.

0101	Ramani Duraiswami	Seats (Total: 70)
	F 11:00am - 11:50am	KEB 1200

CMSC818D **Advanced Topics in Computer Systems; Human Factors in Security and Privacy**

Credits: 3

Grading Method: Regular, Audit, Sat-Fail

Advanced topics selected by the faculty from the literature of computer systems to suit the interest and background of students.

0101	Michelle Mazurek	Seats (Total: 32)
	TuTh 9:30am - 10:45am	IRB 2207

CMSC818N **Advanced Topics in Computer Systems; Robotics**

Credits: 3

Grading Method: Regular, Audit, Sat-Fail

Advanced topics selected by the faculty from the literature of computer systems to suit the interest and background of students.

0101	Dinesh Manocha	Seats (Total: 40)
	TuTh 11:00am - 12:15pm	IRB 2107

CMSC818X **Advanced Topics in Computer Systems**

Credits: 3

Grading Method: Regular, Audit, Sat-Fail

Advanced topics selected by the faculty from the literature of computer systems to suit the interest and background of students.

Contact department for information to register for this course.

CMSC828B **Advanced Topics in Information Processing; Neural Machine Translation**

Credits: 3

Grading Method: Regular, Audit, Sat-Fail

Advanced topics selected by the faculty from the literature of information processing to suit the interest and background of students.

0101	Marine Carpuat	Seats (Total: 30)
	TuTh 3:30pm - 4:45pm	IRB 1207

CMSC828M **Advanced Topics in Information Processing; Applied Mechanism Design for Social Good**

Credits: 3

Grading Method: Regular, Audit, Sat-Fail

Advanced topics selected by the faculty from the literature of information processing to suit the interest and background of students.

0101	John Dickerson	Seats (Total: 50)
	TuTh 2:00pm - 3:15pm	SPH 0302

CMSC838E **Advanced Topics in Programming Languages; Compiler Construction**

Credits: 3

Grading Method: Regular, Audit, Sat-Fail

Advanced topics selected by faculty from the literature of programming languages to suit the interest and background of students.

0101	David Van Horn	Seats (Total: 30)
	TuTh 2:00pm - 3:15pm	HBK 0105

CMSC838J **Advanced Topics in Programming Languages; Interactive Technologies in Human-Computer Interaction**

Credits: 3

Grading Method: Regular, Audit, Sat-Fail

Advanced topics selected by faculty from the literature of programming languages to suit the interest and background of students.

This is a graduate-level, research-oriented course that covers broad areas of interactive technology and HCI topics. The course combines reading, small labs, term project, and tests. Topics include ubiquitous and mobile computing, wearables, natural user interfaces, tangible UIs, interactive fabrication, and more. Through the course, you will have a better understanding of the technology behind each of the topic, learn rapid prototyping skills (including modeling, simple electronics, and fabrication) and build interactive gadgets.

0101	Huaishu Peng	Seats (Total: 40)
	MW 3:30pm - 4:45pm	IRB 1207

CMSC858R **Advanced Topics in Theory of Computing; Ramsey Theory and its Applications**

Credits: 3

Grading Method: Regular, Audit, Sat-Fail

Advanced topics selected by the faculty from the literature of theory of computing to suit the interest and background of students.

0101	William Gasarch	Seats (Total: 35)
	TuTh 3:30pm - 4:45pm	CSI 2107

CMSC898 **Pre-Candidacy Research**

Credits: 1-8 Grading Method: Regular, Sat-Fail

Advanced topics selected by the faculty from the literature of applications of computer science to suit the interest and background of students.

Contact department for information to register for this course.

CMSC899 **Doctoral Dissertation Research**

(Perm req)

Credits: 6 Grading Method: Sat-Fail

Contact department for information to register for this course.

COMM Communication Spring 2020

COMM107 **Oral Communication: Principles and Practices**

Credits: 3 Grading Method: Regular, Pass-Fail General Education: FSOC

Credit only granted for: COMM107, COMM200, ENES143, INAG110, JOUR130 or THET285.

A study of and practice in oral communication, including principles of interviewing, group discussion, listening, informative briefings, and persuasive speeches.

0101	Taylor Hourigan MWF 8:00am - 8:50am	Seats (Total: 19) SKN 0104
0201	Elizabeth Phipps MWF 8:00am - 8:50am	Seats (Total: 19) SKN 1112
0301	Megu Itoh MWF 8:00am - 8:50am	Seats (Total: 19) SKN 1115
0401	Jim Golden MWF 8:00am - 8:50am	Seats (Total: 19) PLS 1176
1101	Taylor Hourigan MWF 9:00am - 9:50am	Seats (Total: 19) SKN 0104
1201	Elizabeth Phipps MWF 9:00am - 9:50am	Seats (Total: 19) SKN 1112
1301	Megu Itoh MWF 9:00am - 9:50am	Seats (Total: 19) SKN 1115

1401	Jim Golden MWF 9:00am - 9:50am	Seats (Total: 19) PLS 1176
1701	Aaron Swanlek MWF 9:00am - 9:50am	Seats (Total: 19) ASY 3217
2301	Drew Ashby-King MWF 10:00am - 10:50am	Seats (Total: 19) SKN 0104
2401	Rong Ma MWF 10:00am - 10:50am	Seats (Total: 19) SKN 1112
2501	Alex Thomas MWF 10:00am - 10:50am	Seats (Total: 19) SKN 1115
2601	Daniel Foster MWF 10:00am - 10:50am	Seats (Total: 19) PLS 1176
3101	Aaron Swanlek MWF 10:00am - 10:50am	Seats (Total: 19) EDU 3236
3201	Sarah Vick MWF 10:00am - 10:50am	Seats (Total: 19) PLS 1184
3301	Drew Ashby-King MWF 11:00am - 11:50am	Seats (Total: 19) SKN 0104
3401	Rong Ma MWF 11:00am - 11:50am	Seats (Total: 19) SKN 1112
3501	Alex Thomas MWF 11:00am - 11:50am	Seats (Total: 19) SKN 1115
3601	Daniel Foster MWF 11:00am - 11:50am	Seats (Total: 19) PLS 1176
3701	Sarah Vick MWF 11:00am - 11:50am	Seats (Total: 19) PLS 1180
4101	Jim Golden MWF 11:00am - 11:50am	Seats (Total: 19) PLS 1184

4201	Janna Soeder, Alex Thomas MWF 1:00pm - 1:50pm	Seats (Total: 19) WDS 1127
4301	Jonathan Leach MWF 1:00pm - 1:50pm	Seats (Total: 19) SKN 1112
4401	Salima Valiyeva MWF 1:00pm - 1:50pm	Seats (Total: 19) PLS 1176
4501	Kathryn Thier MWF 1:00pm - 1:50pm	Seats (Total: 19) PLS 1168
4601	Aaron Swanlek MWF 1:00pm - 1:50pm	Seats (Total: 19) WDS 1131
4701	Daniel Foster MWF 1:00pm - 1:50pm	Seats (Total: 19) PLS 1172
4801	Jim Golden MWF 1:00pm - 1:50pm	Seats (Total: 19) ARC 1123
4901	Jonathan Leach MWF 2:00pm - 2:50pm	Seats (Total: 19) SKN 1112
5001	Salima Valiyeva MWF 2:00pm - 2:50pm	Seats (Total: 19) PLS 1176
5101	Daniel Foster MWF 2:00pm - 2:50pm	Seats (Total: 19) PLS 1168
5201	Aaron Swanlek, Janna Soeder MWF 2:00pm - 2:50pm	Seats (Total: 19) WDS 1131
5601	Jaclyn Bruner MW 2:00pm - 3:15pm	Seats (Total: 19) CHE 2140
5701	Shawna Dias MW 2:00pm - 3:15pm	Seats (Total: 19) PLS 1180
5801	Soyoung Bae MW 2:00pm - 3:15pm	Seats (Total: 19) PLS 1184

5901	Jade Olson MW 2:00pm - 3:15pm	Seats (Total: 19) PHY 4222
6001	David Payne MW 2:00pm - 3:15pm	Seats (Total: 19) WDS 1127
6101	Jaclyn Bruner MW 3:30pm - 4:45pm	Seats (Total: 19) CHE 2116
6201	Shawna Dias MW 3:30pm - 4:45pm	Seats (Total: 19) PLS 1180
6301	Allison Chatham MW 3:30pm - 4:45pm	Seats (Total: 19) PLS 1184
6401	Jade Olson MW 3:30pm - 4:45pm	Seats (Total: 19) PHY 4222
6701	David Payne MW 5:00pm - 6:15pm	Seats (Total: 19) SKN 1112
6801	Tori Mends-Cole MW 5:00pm - 6:15pm	Seats (Total: 19) SKN 1115
6901	Soyoung Bae MW 5:00pm - 6:15pm	Seats (Total: 19) PLS 1176
7101	Tori Mends-Cole MW 6:30pm - 7:45pm	Seats (Total: 19) KEY 0124
7301	Saymin Lee TuTh 8:00am - 9:15am	Seats (Total: 19) PLS 1176
7401	Shelby Sturm TuTh 8:00am - 9:15am	Seats (Total: 19) PLS 1180
7501	Naette Lee TuTh 8:00am - 9:15am	Seats (Total: 19) PLS 1184
7601	Jeannette Viens TuTh 8:00am - 9:15am	Seats (Total: 19) PLS 1158

8101	Saymin Lee TuTh 9:30am - 10:45am	Seats (Total: 19) PLS 1176
8201	Shelby Sturm TuTh 9:30am - 10:45am	Seats (Total: 19) PLS 1180
8301	Naette Lee TuTh 9:30am - 10:45am	Seats (Total: 19) PLS 1184
8401	Christopher Swift TuTh 9:30am - 10:45am	Seats (Total: 19) PLS 1158
8501	Ashley Aragon TuTh 9:30am - 10:45am	Seats (Total: 19) PLS 1162
8601	Shoaa Almalki TuTh 9:30am - 10:45am	Seats (Total: 19) SQH 1111
8801	Shawna Dias TuTh 11:00am - 12:15pm	Seats (Total: 19) KEY 0124
8901	Jeannette Viens TuTh 11:00am - 12:15pm	Seats (Total: 19) PLS 1176
9001	Randall Fowler TuTh 11:00am - 12:15pm	Seats (Total: 19) PLS 1180
9101	Ashley Aragon TuTh 11:00am - 12:15pm	Seats (Total: 19) PLS 1117
9201	Yuan Wang TuTh 11:00am - 12:15pm	Seats (Total: 19) ARC 1123
9301	Sabeen Sheikh TuTh 11:00am - 12:15pm	Seats (Total: 19) PLS 1184
9401	Ollie Jefferson TuTh 11:00am - 12:15pm	Seats (Total: 19) WDS 1127
9501	Erika Perez Montes TuTh 11:00am - 12:15pm	Seats (Total: 19) WDS 1131

9601	Taryn Myers TuTh 12:30pm - 1:45pm	Seats (Total: 19) PLS 1176
9701	Yumin Yan TuTh 12:30pm - 1:45pm	Seats (Total: 19) PLS 1180
9801	Karen Lamb TuTh 12:30pm - 1:45pm	Seats (Total: 19) PLS 1117
9901	Anne Smithson TuTh 12:30pm - 1:45pm	Seats (Total: 19) JMZ 2125
9902	Sabeen Sheikh TuTh 12:30pm - 1:45pm	Seats (Total: 19) PLS 1184
9903	Ollie Jefferson TuTh 12:30pm - 1:45pm	Seats (Total: 19) WDS 1127
9904	Darrian Carroll TuTh 12:30pm - 1:45pm	Seats (Total: 19) WDS 1131
9905	Neha Kamran TuTh 2:00pm - 3:15pm	Seats (Total: 19) SKN 0104
9906	Cassondra Pope TuTh 2:00pm - 3:15pm	Seats (Total: 19) PLS 1180
9907	L Gordon TuTh 2:00pm - 3:15pm	Seats (Total: 19) PLS 1184
9908	Anne Smithson TuTh 2:00pm - 3:15pm	Seats (Total: 19) WDS 0104
9909	Randall Fowler TuTh 2:00pm - 3:15pm	Seats (Total: 19) KEY 0123
9910	Taryn Myers TuTh 2:00pm - 3:15pm	Seats (Total: 19) PLS 1168
9911	Neha Kamran TuTh 3:30pm - 4:45pm	Seats (Total: 19) SKN 0104

9912	Cassondra Pope TuTh 3:30pm - 4:45pm	Seats (Total: 19) PLS 1180
9913	Karen Lamb TuTh 3:30pm - 4:45pm	Seats (Total: 19) PLS 1184
9915	Lingyan Ma TuTh 3:30pm - 4:45pm	Seats (Total: 19) KNI 1105
9916	Jeremy Grossman TuTh 3:30pm - 4:45pm	Seats (Total: 19) PLS 1168
9917	Jeremy Grossman TuTh 5:00pm - 6:15pm	Seats (Total: 19) PLS 1168
9918	Karen Lamb TuTh 5:00pm - 6:15pm	Seats (Total: 19) PLS 1184
9919	Lingyan Ma TuTh 5:00pm - 6:15pm	Seats (Total: 19) ASY 3217
9920	L Gordon TuTh 5:00pm - 6:15pm	Seats (Total: 19) PLS 1176
9921	Christopher Swift TuTh 5:00pm - 6:15pm	Seats (Total: 19) SQH 1123
9923	L Gordon TuTh 6:30pm - 7:45pm	Seats (Total: 19) PLS 1176

COMM107B **Oral Communication: Principles and Practices**

Credits: 3 | Grading Method: Regular, Pass-Fail | General Education: FSOC

Credit only granted for: COMM107, COMM200, ENES143, INAG110, JOUR130 or THET285.

A study of and practice in oral communication, including principles of interviewing, group discussion, listening, informative briefings, and persuasive speeches.

0101	Melissa Lucas	Seats (Total: 19)
	TuTh 12:30pm - 1:45pm	KEY 0124
	This class is designed for current or prospective Business Majors.	

COMM107C **Oral Communication: Principles and Practices**

Credits: 3 | Grading Method: Regular, Pass-Fail | General Education: FSOC

Credit only granted for: COMM107, COMM200, ENES143, INAG110, JOUR130 or THET285.

A study of and practice in oral communication, including principles of interviewing, group discussion, listening, informative briefings, and persuasive speeches.

0101	Cassondra Pope	Seats (Total: 19)
	TuTh 8:00am - 9:15am	KEY 0119
	This class is designed for current or prospective STEM students.	
0201	Cassondra Pope	Seats (Total: 19)
	TuTh 9:30am - 10:45am	KEY 0119
	This class is designed for current or prospective STEM students.	

COMM107D **Oral Communication: Principles and Practices**

Credits: 3 | Grading Method: Regular, Pass-Fail | General Education: FSOC

Credit only granted for: COMM107, COMM200, ENES143, INAG110, JOUR130 or THET285.

A study of and practice in oral communication, including principles of interviewing, group discussion, listening, informative briefings, and persuasive speeches.

0101	Nora Heist	Seats (Total: 19)
	TuTh 8:00am - 9:15am	KEY 0123
	This class is designed for students committed to community engagement and social change. Guided by a model of service learning, students will work alongside the Do Good Institute to enact change in their communities.	
0201	Nora Heist	Seats (Total: 19)
	TuTh 9:30am - 10:45am	KEY 0123
	This class is designed for students committed to community engagement and social change. Guided by a model of service learning, students will work alongside the Do Good Institute to enact change in their communities.	

COMM200 **Critical Thinking and Speaking**

Credits: 3 | Grading Method: Regular, Pass-Fail, Audit | CORE: HO | General Education: FSOC

Credit only granted for: COMM107, COMM200, ENES143, INAG110, JOUR130, OR THET285.

Theory and practice of persuasive discourse analysis and composition. Research techniques, logical and rhetorical conceptions of argument, and technical principles for persuading in public venues.

0101	Christopher Swift TuTh 12:30pm - 1:45pm	Seats (Total: 19) WDS 1130
0201	Christopher Swift TuTh 2:00pm - 3:15pm	Seats (Total: 19) WDS 1130
0301	Jaclyn Bruner MWF 11:00am - 11:50am	Seats (Total: 19) PLS 1115
0401	Jaclyn Bruner MWF 10:00am - 10:50am	Seats (Total: 19) PLS 1115

COMM201 **Introduction to Public Relations**

Credits: 3 | Grading Method: Regular, Pass-Fail

Basic concepts and principles of public relations. Roles in organizations and society; history; skills and practices of public relations; theories and models of effective and ethical public relations.

Restriction: Must be in Communication program.

0101	Sahar Khamis TuTh 12:30pm - 1:45pm	Seats (Total: 35) SKN 1115

COMM230 **Argumentation and Debate**

Credits: 3 | Grading Method: Regular, Pass-Fail, Audit

A study of the fundamental principles of reasoning, analysis, and evidence preparation of debate briefs and presentation of standard academic debate.

0101	Jeremy Grossman TuTh 8:00am - 9:15am	Seats (Total: 24) PLS 1115

0201	Victoria Ledford TuTh 12:30pm - 1:45pm	Seats (Total: 24) KEY 0116	
0301	Darrian Carroll TuTh 11:00am - 12:15pm	Seats (Total: 24) SKN 1112	
0401	Jeremy Grossman TuTh 9:30am - 10:45am	Seats (Total: 24) PLS 1115	

COMM250 **Introduction to Communication Inquiry**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

An introduction to the field of communication. Definitions, models, and contexts of communication; rhetorical theory and rhetorical criticism of discourse.

This is a blended learning course.

0101	Susan Hubbard MW 11:00am - 11:50am Class time/details on ELMs F 9:00am - 9:50am	Seats (Total: 23) SKN 0200 ONLINE PLS 1168	Discussion
0102	Susan Hubbard MW 11:00am - 11:50am Class time/details on ELMs F 10:00am - 10:50am	Seats (Total: 23) SKN 0200 ONLINE PLS 1168	Discussion
0103	Susan Hubbard MW 11:00am - 11:50am Class time/details on ELMs F 11:00am - 11:50am	Seats (Total: 23) SKN 0200 ONLINE PLS 1168	Discussion
0105	Susan Hubbard MW 11:00am - 11:50am Class time/details on ELMs F 10:00am - 10:50am	Seats (Total: 23) SKN 0200 ONLINE EDU 1107	Discussion
0106	Susan Hubbard MW 11:00am - 11:50am Class time/details on ELMs F 11:00am - 11:50am	Seats (Total: 23) SKN 0200 ONLINE EDU 1107	Discussion

0107	Susan Hubbard MW 11:00am - 11:50am Class time/details on ELMs F 9:00am - 9:50am	Seats (Total: 23) SKN 0200 ONLINE EDU 1121	Discussion
0108	Susan Hubbard MW 11:00am - 11:50am Class time/details on ELMs F 10:00am - 10:50am	Seats (Total: 23) SKN 0200 ONLINE EDU 1121	Discussion
0109	Susan Hubbard MW 11:00am - 11:50am Class time/details on ELMs F 11:00am - 11:50am	Seats (Total: 23) SKN 0200 ONLINE EDU 1121	Discussion

COMM269B **Special Topics in Study Abroad II; Oral Communication for Leaders in the Business World**

Credits: 1 Grading Method: Regular, Pass-Fail, Audit

Special topics course taken as part of an approved study abroad program.

Contact department for information to register for this course.

COMM269C **Special Topics in Study Abroad II; Designing Communicatoin Campaigns**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Special topics course taken as part of an approved study abroad program.

Contact department for information to register for this course.

COMM269E **Special Topics in Study Abroad II; Social Media: An Italian Perspective**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Special topics course taken as part of an approved study abroad program.

Contact department for information to register for this course.

COMM269F **Special Topics in Study Abroad II; Social Media, Social Food**

Credits: 1-6 Grading Method: Regular, Pass-Fail, Audit

Special topics course taken as part of an approved study abroad program.

Contact department for information to register for this course.

COMM269M **Special Topics in Study Abroad II; Media Technology**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Special topics course taken as part of an approved study abroad program.

Contact department for information to register for this course.

COMM269P **Special Topics in Study Abroad II; Principles of Film and Media Production**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Special topics course taken as part of an approved study abroad program.

Contact department for information to register for this course.

COMM269V **Special Topics in Study Abroad II; Visual Communication: Intercultural Photography**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Special topics course taken as part of an approved study abroad program.

Contact department for information to register for this course.

COMM288 **Communication Internship**

(Perm req)

Credits: 1-6 Grading Method: Regular, Pass-Fail, Audit

An individual experience arranged by the student with the instructor. Does not satisfy communication major requirements. 45 hours of supervised internship per credit hour with communication professional. Not a substitute for COMM386.

0101	Julie Gowin Contact instructor or department for details.	Seats (Total: 20)
0601	Leah Waks Contact instructor or department for details.	Seats (Total: 20)

COMM324 **Communication and Gender**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit , D General Education: DSHU, DVUP

The creation of images of male and female, and masculine and feminine, through communication, the differences in male and female communication behaviors and styles, and the implications of those images and styles for male-female transactions.

0101	Aya Farhat TuTh 8:00am - 9:15am	Seats (Total: 35) ASY 3203
0201	Aya Farhat TuTh 9:30am - 10:45am	Seats (Total: 35) ASY 3211
0301	Skye De Saint Felix MW 3:30pm - 4:45pm	Seats (Total: 35) SKN 1115
0401	Skye De Saint Felix MW 5:00pm - 6:15pm	Seats (Total: 35) KEY 0102

COMM330 **Argumentation and Public Policy**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Contemporary theories of argumentation with special emphasis on methods of formulating and critiquing public policy argument.

0101	Randall Fowler TuTh 12:30pm - 1:45pm	Seats (Total: 35) SKN 0104

COMM331 **News Writing and Reporting for Public Relations**

(Perm req)

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Prerequisite: COMM201; and must have completed or be concurrently enrolled in JOUR181. Restriction: Must be in Communication program; and (sophomore standing; or junior standing). Or permission of ARHU-Communication department. Credit only granted for: JOUR201, COMM231, or COMM331. Formerly: COMM231.

Writing and researching news and information media for public relations; laboratory in news-gathering tools and writing techniques for public relations.

0101	Vijaya Bohlmann M 10:00am - 11:50am W 10:00am - 11:50am	Seats (Total: 18) PLS 1129 PLS 1129	 Lab

0201	Steven Drake M 12:00pm - 1:50pm W 12:00pm - 1:50pm	Seats (Total: 18) PLS 1129 PLS 1129	 Lab
0301	Vijaya Bohlmann M 8:00am - 9:50am W 8:00am - 9:50am	Seats (Total: 18) PLS 1129 PLS 1129	 Lab
0401	Susan Simon Tu 3:30pm - 5:20pm Th 3:30pm - 5:20pm	Seats (Total: 18) PLS 1129 PLS 1129	 Lab
0501	Gareth Williams M 10:30am - 12:20pm W 10:30am - 12:20pm	Seats (Total: 18) ATL 1410 ATL 1410	 Lab

COMM332 **News Editing for Public Relations**

(Perm req)

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Prerequisite: Minimum grade of C- in COMM331; or students who have taken courses with comparable content may contact the department. And permission of ARHU-Communication department. Restriction: Must be in Communication program. Credit only granted for: JOUR202, COMM232, or COMM332. Formerly: COMM232.

Copy editing, graphic principles and processes, news and information technologies for public relations.

0101	Vijaya Bohlmann Tu 12:30pm - 1:45pm Th 12:30pm - 1:45pm	Seats (Total: 18) PLS 1129 PLS 1129	 Lab

COMM340 **Communicating the Narrative**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

The role of narratives in communicating messages and development of strategies to effectively communicate the narrative form through storytelling, oral reading, and anecdotes.

0101	Sahar Khamis TuTh 11:00am - 12:15pm	Seats (Total: 35) SKN 0104	

COMM351 **Public Relations Techniques**

(Perm req)

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Prerequisite: COMM332. Restriction: Must be in Communication program. Credit only granted for: COMM351 or JOUR331. Formerly: JOUR331.

The techniques of public relations, including news releases, publications and printed materials, audio-visual techniques, speeches and special events. Application of these techniques in laboratory and field projects.

0101	Steven Drake M 5:00pm - 6:15pm W 5:00pm - 6:15pm	Seats (Total: 18) PLS 1129 PLS 1129	 Lab
0201	Susan Simon M 3:30pm - 4:45pm W 3:30pm - 4:45pm	Seats (Total: 18) PLS 1129 PLS 1129	 Lab

COMM353 **New Media Writing for Public Relations**

(Perm req)

Credits: 3 Grading Method: Regular, Pass-Fail

Prerequisite: Minimum grade of C- in COMM351. Restriction: Must be in Communication program. Credit only granted for: COMM352 or COMM353. Formerly: COMM352.

Students learn the uses and influence of new media on public relations practice and expand their ability to write using new and traditional media platforms and tools

0101	Sarah Aghazadeh Tu 8:00am - 9:15am Th 8:00am - 9:15am	Seats (Total: 18) ATL 1410 ATL 1410	 Lab
0201	Sarah Aghazadeh Tu 11:00am - 12:15pm Th 11:00am - 12:15pm	Seats (Total: 18) PLS 1129 PLS 1129	 Lab
0301	Sarah Aghazadeh Tu 9:30am - 10:45am Th 9:30am - 10:45am	Seats (Total: 18) ATL 1410 ATL 1410	 Lab

COMM360 **The Rhetoric of Black America**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit , D

An historical-critical survey of the rhetoric of Black Americans from the colonial period to the present.

0101	Darrian Carroll TuTh 9:30am - 10:45am	Seats (Total: 35) HBK 0105

COMM369E Special Topics in Study Abroad III; Digital Media and Society

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Special topics course taken as part of an approved study abroad program.

Contact department for information to register for this course.

COMM370 Mediated Communication

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Prerequisite: COMM250. Restriction: Junior standing or higher.

Analysis and critique of structure, performance, content, effects, and future of mediated communication.

0101	Catherine Steele TuTh 11:00am - 12:15pm	Seats (Total: 35) HBK 0109

COMM371 Communication and Digital Media

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Restriction: Must be in Communication program. Credit only granted for: COMM371 or COMM398V. Formerly: COMM398V.

A basic introduction to communication in the digital age. Through class lectures, assignments and projects, students will learn to effectively use new media for the purpose of strategic message creation and management used in the field of communication. Students will apply the basics of visual layout skills and the principles of visual design to create messages using words and images.

ESG1	Robert Coleman MW 9:00am - 10:45am *Restricted to COMM majors at Shady Grove.*	Seats (Total: 25) BLD3 3216

COMM374 Communicating Visually: Message Production and Digital Media

Credits: 3 Grading Method: Regular, Pass-Fail

Restriction: Restricted to Communication Majors at the Universities at Shady Grove.

Focus on the interplay between technology, images and sound in the creation of digital content. This is a communication process by which a digital visual message evolves from conception to completion, incorporating the creative, financial and marketing tools. Students will conceive, plan, recruit and supervise digital video projects, developing a familiarity with production management technique and execution.

Credit only granted for COMM374 or COMM498T.

ESG1	Adam Nixon M 4:30pm - 7:00pm	Seats (Total: 25) BLD3 3216
	Restricted to COMM majors at Shady Grove.	

COMM376 Communication through Advocacy Short Film

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Restriction: Must be in Communication program.

Explores the theory and practice of contemporary communication and advocacy short form video.

ESG1	Adam Nixon Tu 4:30pm - 7:00pm	Seats (Total: 25) BLD3 3216
	Restricted to COMM majors at Shady Grove.	

COMM382 Essentials of Intercultural Communication

Credits: 3 Grading Method: Regular, Pass-Fail, Audit , D General Education: DVCC

Credit only granted for: COMM382 or COMM482.

Introduction of major theories and concepts of intercultural communication; examination of processes that make up cultural differences; and use of intercultural communication competence skills.

0101	David Payne MW 3:30pm - 4:45pm	Seats (Total: 35) SKN 0104
0201	Anita Seate MW 5:00pm - 6:15pm	Seats (Total: 35) SYM 0215

COMM386 **Experiential Learning**

(Perm req)

Credits: 3-6 | Grading Method: Regular, Pass-Fail | General Education: DSSP

Prerequisite: Permission of ARHU-Communication department. Restriction: Junior standing or higher; and must be in Communication program.

Supervised internship experience with communication professionals. Relation of academic training to professional experience.

0101	Julie Gowin Contact instructor or department for details.	Seats (Total: 75)
ESG1	Raimonda Nuredini Contact instructor or department for details. *Contact department or instructor for details.*	Seats (Total: 20)

COMM388 **Communication Practicum**

(Perm req)

Credits: 1-3 | Grading Method: Regular, Pass-Fail

Supervised professional-level practice in communication.

Contact department for information to register for this course.

COMM398 **Selected Topics in Communication**

(Perm req)

Credits: 3 | Grading Method: Regular, Pass-Fail

Topical study of contemporary issues in communication.

Contact department for information to register for this course.

COMM398C **Selected Topics in Communication; Peer Consulting in Oral Communication**

(Perm req)

Credits: 3 | Grading Method: Regular, Pass-Fail

Topical study of contemporary issues in communication.

Restricted to majors in Communication. Provides training in the principles and practice of peer consulting in the context of the Oral Communication Center in the Department of Communication. Students will apply and integrate the knowledge and skills acquired in COMM107 (or COMM 200) with new training to help their peers become outstanding listeners and speakers. They will also engage in a group research project designed to extend knowledge in peer consulting best practices.

0101	Raphael Mazzone TuTh 5:00pm - 6:15pm	Seats (Total: 20) SKN 2117

COMM398J **Selected Topics in Communication; Communcation and Advanced Digital Imaging**

Credits: 3

Grading Method: Regular, Pass-Fail

Topical study of contemporary issues in communication.

Continuation of COMM398N (although COMM398N is not a prerequisite). Concentration is on advanced visual imaging, with theme-based projects that incorporate advanced features of Photoshop CC, including raw imaging.

ESG1	Robert Coleman MW 2:00pm - 3:45pm *Restricted to COMM majors at Shady Grove.*	Seats (Total: 25) BLD3 3216

COMM398L **Selected Topics in Communication; Science Media and the Public**

Credits: 3

Grading Method: Regular, Pass-Fail

Topical study of contemporary issues in communication.

Designed to introduce the interrelationship among science, media, and society. We will address current thinking about how do mass media shape the nature of public debates about science, where do people go for information about science, and how public understand science. Upon successful completion, students will be able to specify the roles of knowledge, expertise, risk, media, public understanding and discourse play in perceptions of science and policy making.

0101	Ji Youn Kim TuTh 12:30pm - 1:45pm	Seats (Total: 35) HBK 0105

COMM398O **Selected Topics in Communication; Environmental Communication**

Credits: 3

Grading Method: Regular, Pass-Fail

Topical study of contemporary issues in communication.

ESG1	Jade Olson MW 11:00am - 12:15pm *Restricted to COMM majors at Shady Grove.*	Seats (Total: 40) BLD3 3202

COMM398P **Selected Topics in Communication; Advanced Strategic Message Design**

Credits: 3 Grading Method: Regular, Pass-Fail

Topical study of contemporary issues in communication.

ESG1	Robert Coleman	Seats (Total: 25)
	MW 11:00am - 12:15pm	BLD3 3216
	Restricted to COMM majors at Shady Grove.	

COMM398R **Selected Topics in Communication; Interactive Online Media**

Credits: 3 Grading Method: Regular, Pass-Fail

Topical study of contemporary issues in communication.

Contact department for information to register for this course.

COMM398V **Selected Topics in Communication; Introduction to Translation and Interpreting**

Credits: 3 Grading Method: Regular, Pass-Fail

Topical study of contemporary issues in communication.

This course will introduce students to interpreting and translation with an overview of the fields and practical skills necessary for the professions. Intended for individuals who have a strong command of English and at least one other language, course participants will explore how to put their language skills to work. Furthermore, the course will define the knowledge, skills, and credentials necessary to work successfully as a professional translator and/or interpreter.

0101	Garrett Bradford	Seats (Total: 40)
	M 5:30pm - 8:30pm	TYD 1114

COMM399 **Honors Thesis**

(Perm req)

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

0601	Leah Waks	Seats (Total: 10)
	Contact instructor or department for details.	
4901	Lindsey Anderson	Seats (Total: 10)
	Contact instructor or department for details.	

5301	Kang Namkoong Contact instructor or department for details.	Seats (Total: 10)	

COMM400 **Research Methods in Communication**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Prerequisite: COMM250; and must have an introductory course in statistics. Restriction: Must be in Communication program. Credit only granted for: COMM400 or COMM307.

Philosophy of scientific method; role of theory; research ethics; empirical research methods (measurement, sampling, design, analysis).

Attendance on the first day of class is mandatory.

0101	Anita Seate MW 2:00pm - 2:50pm F 9:00am - 9:50am	Seats (Total: 20) ATL 2324 PLS 1117	Discussion
0102	Anita Seate MW 2:00pm - 2:50pm F 10:00am - 10:50am	Seats (Total: 20) ATL 2324 PLS 1117	Discussion
0103	Anita Seate MW 2:00pm - 2:50pm F 11:00am - 11:50am	Seats (Total: 20) ATL 2324 PLS 1117	Discussion
0104	Anita Seate MW 2:00pm - 2:50pm F 12:00pm - 12:50pm	Seats (Total: 20) ATL 2324 LEF 1171	Discussion
0105	Anita Seate MW 2:00pm - 2:50pm F 1:00pm - 1:50pm	Seats (Total: 20) ATL 2324 LEF 1171	Discussion
0106	Anita Seate MW 2:00pm - 2:50pm F 2:00pm - 2:50pm	Seats (Total: 20) ATL 2324 LEF 1171	Discussion
ESG1	Soyoung Bae TuTh 12:30pm - 1:45pm *Restricted to COMM majors at Shady Grove.*	Seats (Total: 40) BLD3 4212	

COMM401 **Interpreting Strategic Discourse**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Prerequisite: COMM250. Restriction: Must be in Communication program.

Principles and approaches for practical analysis of discourse designed to shape audience opinion.

0101	Damien Pfister TuTh 2:00pm - 2:50pm W 9:00am - 9:50am	Seats (Total: 20) SKN 0200 LEF 1221	Discussion
0102	Damien Pfister TuTh 2:00pm - 2:50pm W 10:00am - 10:50am	Seats (Total: 20) SKN 0200 LEF 1222	Discussion
0103	Damien Pfister TuTh 2:00pm - 2:50pm W 11:00am - 11:50am	Seats (Total: 20) SKN 0200 LEF 0135	Discussion
0104	Damien Pfister TuTh 2:00pm - 2:50pm W 9:00am - 9:50am	Seats (Total: 20) SKN 0200 LEF 1222	Discussion
0105	Damien Pfister TuTh 2:00pm - 2:50pm W 10:00am - 10:50am	Seats (Total: 20) SKN 0200 LEF 1221	Discussion
0106	Damien Pfister TuTh 2:00pm - 2:50pm W 11:00am - 11:50am	Seats (Total: 20) SKN 0200 LEF 1222	Discussion

COMM402 **Communication Theory and Process**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Prerequisite: COMM250. Restriction: Must be in Communication program.

Philosophical and conceptual analysis of communication theories.

0101	Kang Namkoong MW 12:00pm - 12:50pm M 9:00am - 9:50am	Seats (Total: 20) ASY 2203 EDU 2101	Discussion
0102	Kang Namkoong MW 12:00pm - 12:50pm M 10:00am - 10:50am	Seats (Total: 20) ASY 2203 EDU 2101	Discussion
0103	Kang Namkoong MW 12:00pm - 12:50pm M 11:00am - 11:50am	Seats (Total: 20) ASY 2203 EDU 2101	Discussion
0105	Kang Namkoong MW 12:00pm - 12:50pm M 10:00am - 10:50am	Seats (Total: 20) ASY 2203 ARC 1123	Discussion
0106	Kang Namkoong MW 12:00pm - 12:50pm M 11:00am - 11:50am	Seats (Total: 20) ASY 2203 ARC 1123	Discussion

COMM422 **Communication Management**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Communication policies, plans, channels, and practices in the management of the communication function in organizations.

ESG1	Andrew Wolvin TuTh 11:00am - 12:15pm *Restricted to COMM majors at Shady Grove.*	Seats (Total: 35) BLD3 2226	

COMM425 **Negotiation and Conflict Management**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Role of communication in shaping negotiation and conflict processes and outcomes.

Restricted to COMM majors.

0101	Lauren Edelstein TuTh 11:00am - 12:15pm	Seats (Total: 45) CCC 1111	

ESG1	David Payne TuTh 9:30am - 10:45am	Seats (Total: 40) BLD3 2225

Restricted to COMM majors at Shady Grove.

COMM426 Conflict Management

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Recommended: COMM425; and COMM250; and COMM402.

Role of communication in managing conflict processes.

Restricted to COMM majors.

0101	Lauren Edelstein TuTh 9:30am - 10:45am	Seats (Total: 45) CCC 1111

COMM427 Crisis Communication

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Credit only granted for: COMM398C or COMM427. Formerly: COMM398C.

Explores theories and research related to communication before, during, and after a crisis. Students examine the fundamentals of organizational communication, crisis management, and strategic and crisis communication planning before examining case studies of a number of real-life crises: organizational crises, natural disasters, accidents, terrorism incidents, health crises, and major crises of credibility.

0101	Brooke Liu MW 2:00pm - 3:15pm	Seats (Total: 35) HBK 0109

COMM436 Interpersonal Arguing

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Prerequisite: COMM400 and COMM250. Restriction: Must be in Communication program. Credit only granted for: COMM436 or COMM498I. Formerly: COMM498I.

An examination of face to face arguing.

0101	Dale Hample TuTh 3:30pm - 4:45pm	Seats (Total: 35) SQH 1121

COMM450 **Ancient and Medieval Rhetorical Theory**

Credits: 3

Grading Method: Regular, Pass-Fail, Audit

Prerequisite: COMM250. Restriction: Must be in Communication program. Credit only granted for: COMM450 or COMM650.

A survey of rhetorical theory in the ancient and medieval periods. Emphasis is placed on the theoretical problems that gave rise to its development within both periods. Authors include Isocrates, Plato, Aristotle, Cicero, Quintilian, Hermogenes, Martianus Capella, Aurelius Augustine, Alberic of Monte Cassino, Geoffrey of Vinsauf and Robert of Basevorn.

Restricted to COMM majors only.

0101	Damien Pfister	Seats (Total: 35)
	TuTh 12:30pm - 1:45pm	PHY 1219

COMM454 **Rhetoric of the 1960s**

Credits: 3

Grading Method: Regular, Pass-Fail, Audit

Prerequisite: COMM401; or permission of ARHU-Communication department. Restriction: Must not have completed COMM453 (Spring2003).

Study of key rhetoric of the 1960s. Treats rhetoric of relevant Presidents and several protest movements including civil rights, anti-war, and women's liberation. Contrasts traditional modes of argument with alternative rhetorical forms.

0101	Michelle Yang	Seats (Total: 35)
	MW 5:00pm - 6:15pm	TYD 2110

COMM461 **Voices of Public Leadership in the Twentieth Century**

Credits: 3

Grading Method: Regular, Pass-Fail, Audit

Study of the use of speaking in the power struggles of the twentieth century. Focus is on important speakers of the century, their social and policy influence, and the struggle to expand the diversity of voices with power in the public sphere.

0101	Carly Woods	Seats (Total: 35)
	MW 2:00pm - 3:15pm	CHM 1224

COMM469 **The Discourse of Social Movements**

Credits: 3

Grading Method: Regular, Pass-Fail, Audit

Study of key social movements that have influenced American social and political life. In alternate years the Civil Rights Movement and the Rhetoric of Women's Suffrage and Abolitionism. Consideration of how groups excluded from or marginalized in American political life affect social change.

ESG1	Jade Olson	Seats (Total: 40)
	MW 9:30am - 10:45am	BLD3 3202
	Restricted to COMM majors at Shady Grove.	

COMM469G **The Discourse of Social Movements; Rhetoric of Gender Activism**

Credits: 3

Grading Method: Regular, Pass-Fail, Audit

Study of key social movements that have influenced American social and political life. In alternate years the Civil Rights Movement and the Rhetoric of Women's Suffrage and Abolitionism. Consideration of how groups excluded from or marginalized in American political life affect social change.

This course will explore the interactive, symbolic, and transformative dimensions of social movement communication around issues of gender and sexuality. We will examine historical and contemporary case studies in order to better understand how marginalized groups use rhetoric to challenge dominant narratives and forge social change.

0101	Carly Woods	Seats (Total: 35)
	MW 3:30pm - 4:45pm	CHM 0119

COMM470 **Listening**

Credits: 3

Grading Method: Regular, Pass-Fail, Audit

The principles of listening behavior.

ESG1	Andrew Wolvin	Seats (Total: 35)
	TuTh 9:00am - 10:15am	BLD3 2226
	Restricted to COMM majors at Shady Grove.	

COMM475 **Persuasion**

Credits: 3

Grading Method: Regular, Pass-Fail, Audit

Bases of persuasion, with emphasis on recent experimental developments in persuasion.

Restricted to COMM majors.

0201	Susan Hubbard MW 12:30pm - 1:45pm	Seats (Total: 45) SKN 0104
ESG1	Soyoung Bae TuTh 2:00pm - 3:15pm *Restricted to COMM majors at Shady Grove.*	Seats (Total: 40) BLD3 4212

COMM476 **Language, Communication, and Action**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Communication as symbolic action through the study of communication ethics. Emerging ethical principles and decision-making in public discourse, interpersonal communication, organizational communication, public relations, health communication, and crisis communication.

This course is restricted to COMM majors only.

0101	Elizabeth Toth TuTh 5:00pm - 6:15pm	Seats (Total: 35) KEY 0102

COMM478 **Communication Colloquium**

Credits: 1 Grading Method: Regular, Pass-Fail

Current trends and issues in the field of communication, stressing recent research methods. Recommended for senior and graduate student majors and minors in communication.

0101	Damien Pfister F 12:00pm - 1:30pm	Seats (Total: 40) SKN 0200

COMM483 **Senior Seminar in Public Relations**

(Perm req)

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Prerequisite: COMM351 and COMM400. Credit only granted for: COMM483 or JOUR483. Formerly: JOUR483.

Integration of theory, techniques and research methods into the planning and execution of public relations campaigns for specific organizations. Analysis of research on the case studies of public relations.

Restricted to majors in Communitcation

0101	Sun Young Lee TuTh 12:30pm - 1:45pm	Seats (Total: 20) SKN 1112
0201	Elizabeth Toth TuTh 3:30pm - 4:45pm	Seats (Total: 20) KEY 0123
0301	Susan Simon TuTh 11:00am - 12:15pm	Seats (Total: 20) TYD 1108
0401	Sun Young Lee TuTh 5:00pm - 6:15pm	Seats (Total: 20) KEY 0123

COMM488 **Communication Portfolio Project**

(Perm req)

Credits: 1

Grading Method: Regular, Pass-Fail

Preparation of the professional communication portfolio.

Contact department for information to register for this course.

COMM488I **Communication Portfolio Project; Strategic Interviewing**

Credits: 1

Grading Method: Regular, Pass-Fail

Preparation of the professional communication portfolio.

This course introduces students to advanced techniques in interviewing for job opportunities and career progression. This online course focuses on the dynamics of the interview process, the communication theories and best practices behind influence and persuasion, and the communication aptitudes and skills that distinguish top candidates.

0101	Gareth Williams Class time/details on ELMs	Seats (Total: 50) ONLINE

COMM489 **Topical Research**

(Perm req)

Credits: 1-3

Grading Method: Regular, Pass-Fail, Audit

Individualized research projects conducted with a faculty sponsor.

Contact department for information to register for this course.

COMM498A **Seminar; Black Discourse and Digital Communication**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Present-day communication research.

Examines the connections between black discourse, oral culture, and traditional media with new digital media technology. Various methods, theoretical approaches, and tools for studying social media and online communication.

0101	Catherine Steele TuTh 9:30am - 10:45am	Seats (Total: 25) HBK 1112

COMM498D **Seminar; Media, Culture, and Society in Israel**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Present-day communication research.

Cross-listed with ISRL448B. Credit only granted for COMM498D or ISRL448B. This course acquaints students with the historical development of media in Israel, from its government-sponsored monopolistic structure towards its current highly competitive, fragmented system. The course will discuss issues unique to Israel's media environment, including the media's role in nation-building, collective memory, social integration, and multiculturalism, and the securitization of media in the Israeli-Arab conflict.

0101	Elie Friedman Class time/details on ELMs	Seats (Total: 35) ONLINE
0102	Elie Friedman Class time/details on ELMs	Seats (Total: 31) ONLINE

COMM498E **Seminar; Populism & Social Media: A Comparative Approach**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Present-day communication research.

Crosslisted with ISRL448C. Credit granted for COMM498E or ISRL448C The new media ecosystem has had a major impact on the emergence of populist movements, and not only in advanced democracies. Populist leaders are using social media to achieve power and to manipulate public opinion once they hold it. The course will look at the world-wide phenomenon of populism and populist leaders, with an emphasis on the Israeli case of Prime Minister Netanyahu's move from Tele-populism to Digital populism.

0100	Yoram Peri MW 3:30pm - 4:45pm	Seats (Total: 25) TWS 1313

COMM498G **Seminar; Event Planning and Communication**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Present-day communication research.

Restricted to COMM majors (1506A) only. A hands-on course where client work will develop the professional-level skills required to plan a creative event on time and under budget and build brand awareness of the client. This course requires attendance at several meetings, conference calls, lectures and activities outside of the scheduled class time.

0101	Rameesha Mehboob, Leah Waks TuTh 5:00pm - 6:15pm	Seats (Total: 35) TYD 1114

COMM498I **Seminar; New Media and Health COMM**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Present-day communication research.

Students will gain an in-depth understanding of new media technologies and their roles in the field of health communication. The course blends theoretical concepts and practical concerns that impact upon health communication processes.

0101	Kang Namkoong MW 2:00pm - 3:15pm	Seats (Total: 35) SQH 1119

COMM498L **Seminar; Writing for Film and Digital Media**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Present-day communication research.

ESG1	Adam Nixon W 4:30pm - 7:00pm *Restricted to COMM majors at Shady Grove.*	Seats (Total: 25) BLD3 3216

COMM498N **Seminar; Creating the Narrative: Genre-Filmmaking and Dramatic Structure**

Credits: 3

Grading Method: Regular, Pass-Fail, Audit

Present-day communication research.

First time filmmakers often use genre traditions to break into the profession. In this class we will explore the history, motifs, and technique of the horror, suspense and romantic comedy genres.

ESG1	Adam Nixon	Seats (Total: 25)
	Th 4:30pm - 7:00pm	BLD3 3216
	Restricted to COMM majors at Shady Grove.	

COMM498V **Seminar; Visual Rhetoric**

Credits: 3

Grading Method: Regular, Pass-Fail, Audit

Present-day communication research.

0101	Michelle Yang	Seats (Total: 35)
	MW 3:30pm - 4:45pm	TYD 2110

COMM498Y **Seminar; Freedom of Speech and the First Amendment**

Credits: 3

Grading Method: Regular, Pass-Fail, Audit

Present-day communication research.

This course examines the U.S. Supreme Court's rulings on freedom of speech cases grounded in the First Amendment.

0101	Anne Smithson	Seats (Total: 35)
	TuTh 11:00am - 12:15pm	EDU 1107

COMM601 **Historical-Critical Research in Communication**

Credits: 3

Grading Method: Regular, Audit, Sat-Fail

Formerly: SPCH601.

Intense study in critical and historical methodology as applicable to research in communication. Emphasis will be placed on the composition and the evaluation of historical-critical studies of significance in the field of rhetorical communication scholarship.

PLF1	Misti Yang, Shawn Parry-Giles	Seats (Total: 20)
	Class time/details on ELMs	ONLINE
	Restricted to students in the Enhanced English Fluency Program.	

COMM606 **Seminar in Communication Management**

Credits: 3

Grading Method: Regular, Audit, Sat-Fail

Restriction: Restricted to GCPS (Z045) in Communication; or must be in Public Management-Executive Masters (Master's) program.

Communication and public relations as a managed function of organizations are introduced. Students learn how managing communication contributes to organizational effectiveness. Using organizational theory, theories of Excellence in public relations and communication management, communication metrics and communication ethics, students build their communication strategic management skills beyond the programmatic level to the functional and organizational levels of decision-making.

Must be in Graduate Studies in Translation and Interpreting; for permission to enroll, contact oes@umd.edu

Click here for more course information.

PG01	Stephen Lank, Elisabetta Ullmann	Seats (Total: 16)
	Th 9:00am - 11:50am	SKN 2127

COMM609 **Fundamentals of Interpreting**

Credits: 2-6

Grading Method: Regular, Audit, Sat-Fail

Develops a systematic, reflective approach to interpreting tasks in real-world settings and outlines the use of different modes of interpreting under professional working conditions. Provides an overview of interpreting skills with exercises to develop them, including focus on active listening and analysis, effective use of memory, and delivery of the target message. Interpreting strategies and techniques in both dialogue and formal consecutive settings are discussed and practiced in a range of interpreting domains. Includes sight translation.

Must be in Graduate Studies in Translation and Interpreting; for permission to enroll, contact oes@umd.edu

PG01	Hagar Attia	Seats (Total: 30)
	Contact instructor or department for details.	

COMM609A **Fundamentals of Interpreting; Methodology**

Credits: 1

Grading Method: Regular, Audit, Sat-Fail

Develops a systematic, reflective approach to interpreting tasks in real-world settings and outlines the use of different modes of interpreting under professional working conditions. Provides an overview of interpreting skills with exercises to develop them, including focus on active listening and analysis, effective use of memory, and delivery of the target message. Interpreting strategies and techniques in both dialogue and formal consecutive settings are discussed and practiced in a range of interpreting domains. Includes sight translation.

Must be in Graduate Studies in Translation and Interpreting; for permission to enroll, contact oes@umd.edu

XG01	Esperanza Pombo Lopez-Barron M 2:00pm - 4:15pm *Biweekly. Start Date: 02-03.*	Seats (Total: 16) SKN 3117

COMM609I **Fundamentals of Interpreting; Korean into English/English into Korean**

Credits: 1

Grading Method: Regular, Audit, Sat-Fail

Develops a systematic, reflective approach to interpreting tasks in real-world settings and outlines the use of different modes of interpreting under professional working conditions. Provides an overview of interpreting skills with exercises to develop them, including focus on active listening and analysis, effective use of memory, and delivery of the target message. Interpreting strategies and techniques in both dialogue and formal consecutive settings are discussed and practiced in a range of interpreting domains. Includes sight translation.

Must be in Graduate Studies in Translation and Interpreting; for permission to enroll, contact oes@umd.edu

XGE1	Lee Boese Sa 1:00pm - 3:10pm	Seats (Total: 16) ONLINE
XGK1	Lee Boese Sa 10:00am - 12:10pm	Seats (Total: 16) ONLINE

COMM619 **Consecutive Interpretation**

Credits: 2-6

Grading Method: Regular, Audit, Sat-Fail

Builds upon the systematic, reflective approach to interpreting in real-world settings introduced in Fundamentals of Interpreting. Consecutive interpreting skills are consolidated through individual and group practice, and any remaining challenges related to consecutive interpreting sub-skills are identified and addressed. Stresses effective analysis, note-taking, and use of voice during exercises in sight translation, dialogue, and formal consecutive interpreting.

Must be in Graduate Studies in Translation and Interpreting; for permission to enroll, contact oes@umd.edu

PG01	Hagar Attia	Seats (Total: 16)
	Contact instructor or department for details.	

COMM619A **Consecutive Interpretation; Methodology**

Credits: 2 Grading Method: Regular, Audit, Sat-Fail

Builds upon the systematic, reflective approach to interpreting in real-world settings introduced in Fundamentals of Interpreting. Consecutive interpreting skills are consolidated through individual and group practice, and any remaining challenges related to consecutive interpreting sub-skills are identified and addressed. Stresses effective analysis, note-taking, and use of voice during exercises in sight translation, dialogue, and formal consecutive interpreting.

Must be in Graduate Studies in Translation and Interpreting; for permission to enroll, contact oes@umd.edu

XG01	Esperanza Pombo Lopez-Barron	Seats (Total: 16)
	M 2:00pm - 4:15pm	SKN 3117
	Biweekly. Start Date: 02-03.	

COMM619B **Consecutive Interpretation; Arabic into English/English into Arabic**

Credits: 2 Grading Method: Regular, Audit, Sat-Fail

Builds upon the systematic, reflective approach to interpreting in real-world settings introduced in Fundamentals of Interpreting. Consecutive interpreting skills are consolidated through individual and group practice, and any remaining challenges related to consecutive interpreting sub-skills are identified and addressed. Stresses effective analysis, note-taking, and use of voice during exercises in sight translation, dialogue, and formal consecutive interpreting.

Must be in Graduate Studies in Translation and Interpreting; for permission to enroll, contact oes@umd.edu

XGA1	Ihab Ali W 5:00pm - 6:10pm Class time/details on ELMs	Seats (Total: 16) SKN 3117 ONLINE	Discussion
XGE1	Ihab Ali W 6:15pm - 7:15pm Class time/details on ELMs	Seats (Total: 16) SKN 3117 ONLINE	Discussion

COMM619C **Consecutive Interpretation; Sight Translation: Arabic into English/English into Arabic**

Credits: 2 Grading Method: Regular, Audit, Sat-Fail

Builds upon the systematic, reflective approach to interpreting in real-world settings introduced in Fundamentals of Interpreting. Consecutive interpreting skills are consolidated through individual and group practice, and any remaining challenges related to consecutive interpreting sub-skills are identified and addressed. Stresses effective analysis, note-taking, and use of voice during exercises in sight translation, dialogue, and formal consecutive interpreting.

Must be in Graduate Studies in Translation and Interpreting; for permission to enroll, contact oes@umd.edu

XGA1	John Samaha Jr Class time/details on ELMs	Seats (Total: 16) ONLINE
XGE1	John Samaha Jr Class time/details on ELMs	Seats (Total: 16) ONLINE

COMM619F **Consecutive Interpretation; French into English/English into French**

Credits: 2 Grading Method: Regular, Audit, Sat-Fail

Builds upon the systematic, reflective approach to interpreting in real-world settings introduced in Fundamentals of Interpreting. Consecutive interpreting skills are consolidated through individual and group practice, and any remaining challenges related to consecutive interpreting sub-skills are identified and addressed. Stresses effective analysis, note-taking, and use of voice during exercises in sight translation, dialogue, and formal consecutive interpreting.

Must be in Graduate Studies in Translation and Interpreting; for permission to enroll, contact oes@umd.edu

XGE1	Pascale Kraus W 3:30pm - 4:30pm Contact instructor or department for details. *Biweekly.*	Seats (Total: 16) SKN 3118
XGF1	Pascale Kraus M 3:30pm - 5:30pm *Biweekly. Start Date: 01-27.*	Seats (Total: 16) SKN 3118

COMM619G **Consecutive Interpretation; Sight Translation: French into English/English into French**

Credits: 2 Grading Method: Regular, Audit, Sat-Fail

Builds upon the systematic, reflective approach to interpreting in real-world settings introduced in Fundamentals of Interpreting. Consecutive interpreting skills are consolidated through individual and group practice, and any remaining challenges related to consecutive interpreting sub-skills are identified and addressed. Stresses effective analysis, note-taking, and use of voice during exercises in sight translation, dialogue, and formal consecutive interpreting.

Must be in Graduate Studies in Translation and Interpreting; for permission to enroll, contact oes@umd.edu

XGE1	Brigitte Andreassier Class time/details on ELMs	Seats (Total: 16) ONLINE
XGF1	Pascale Kraus M 5:30pm - 6:30pm Contact instructor or department for details. *Biweekly. Start Date 01-27.*	Seats (Total: 16) SKN 3118

COMM619M **Consecutive Interpretation; Spanish into English/English into Spanish**

Credits: 2 Grading Method: Regular, Audit, Sat-Fail

Builds upon the systematic, reflective approach to interpreting in real-world settings introduced in Fundamentals of Interpreting. Consecutive interpreting skills are consolidated through individual and group practice, and any remaining challenges related to consecutive interpreting sub-skills are identified and addressed. Stresses effective analysis, note-taking, and use of voice during exercises in sight translation, dialogue, and formal consecutive interpreting.

Must be in Graduate Studies in Translation and Interpreting; for permission to enroll, contact oes@umd.edu

XGE1	Esperanza Pombo Lopez-Barron M 11:00am - 1:15pm *Biweekly. Start Date 02-03.*	Seats (Total: 16) SKN 3117
XGS1	Rosalinda Meza-Steel Sa 10:30am - 12:30pm *Biweekly. Start Date: 02-01.*	Seats (Total: 16) SKN 3117

COMM619N **Consecutive Interpretation; Sight Translation: Spanish into English/English into Spanish**

Credits: 2-6 Grading Method: Regular, Audit, Sat-Fail

Builds upon the systematic, reflective approach to interpreting in real-world settings introduced in Fundamentals of Interpreting. Consecutive interpreting skills are consolidated through individual and group practice, and any remaining challenges related to consecutive interpreting sub-skills are identified and addressed. Stresses effective analysis, note-taking, and use of voice during exercises in sight translation, dialogue, and formal consecutive interpreting.

Must be in Graduate Studies in Translation and Interpreting; for permission to enroll, contact oes@umd.edu

XGE1	Eva Vilarrubi Tu 4:30pm - 5:10pm *Biweekly.*	Seats (Total: 16) SKN 3117
XGS1	Rosalinda Meza-Steel Sa 12:30pm - 1:30pm *Biweekly. Start Date: 02-01.*	Seats (Total: 16) SKN 3117

COMM629 **Introduction to Simultaneous Interpretation**

Credits: 1 Grading Method: Regular, Audit, Sat-Fail

Builds upon the overview of the simultaneous mode in Fundamentals of Interpreting by reviewing the relationship between consecutive and simultaneous skills and introducing work in the booth. Challenges of simultaneous interpreting, including split attention, ear-voice span, and voice and microphone technique are addressed. Participants become familiar with the booth and exercises required to build simultaneous skills. Role and use of portable equipment in professional settings are discussed. Recommended as preparation for the M.A. entrance examination.

Must be in Graduate Studies in Translation and Interpreting; for permission to enroll, contact oes@umd.edu

PG01	Hagar Attia Contact instructor or department for details.	Seats (Total: 16)

COMM629A **Introduction to Simultaneous Interpretation; Arabic into English/English into Arabic**

Credits: 1

Grading Method: Regular,
Audit, Sat-Fail

Builds upon the overview of the simultaneous mode in Fundamentals of Interpreting by reviewing the relationship between consecutive and simultaneous skills and introducing work in the booth. Challenges of simultaneous interpreting, including split attention, ear-voice span, and voice and microphone technique are addressed. Participants become familiar with the booth and exercises required to build simultaneous skills. Role and use of portable equipment in professional settings are discussed. Recommended as preparation for the M.A. entrance examination.

Must be in Graduate Studies in Translation and Interpreting; for permission to enroll, contact oes@umd.edu

XGA1	Ihab Ali Sa 9:00am - 9:30am Contact instructor or department for details.	Seats (Total: 16) SKN 3118
XGE1	Ihab Ali Sa 9:30am - 10:10am Contact instructor or department for details.	Seats (Total: 16) SKN 3118

COMM629F **Introduction to Simultaneous Interpretation; French into English/English into French**

Credits: 1

Grading Method: Regular,
Audit, Sat-Fail

Builds upon the overview of the simultaneous mode in Fundamentals of Interpreting by reviewing the relationship between consecutive and simultaneous skills and introducing work in the booth. Challenges of simultaneous interpreting, including split attention, ear-voice span, and voice and microphone technique are addressed. Participants become familiar with the booth and exercises required to build simultaneous skills. Role and use of portable equipment in professional settings are discussed. Recommended as preparation for the M.A. entrance examination.

Must be in Graduate Studies in Translation and Interpreting; for permission to enroll, contact oes@umd.edu

XGE1	Pascale Kraus W 4:30pm - 5:15pm	Seats (Total: 16) SKN 3118

XGF1	Pascale Kraus W 5:15pm - 5:45pm Contact instructor or department for details.	Seats (Total: 16) SKN 3118

COMM629M **Introduction to Simultaneous Interpretation; Spanish into English/English into Spanish**

Credits: 1

Grading Method: Regular,
Audit, Sat-Fail

Builds upon the overview of the simultaneous mode in Fundamentals of Interpreting by reviewing the relationship between consecutive and simultaneous skills and introducing work in the booth. Challenges of simultaneous interpreting, including split attention, ear-voice span, and voice and microphone technique are addressed. Participants become familiar with the booth and exercises required to build simultaneous skills. Role and use of portable equipment in professional settings are discussed. Recommended as preparation for the M.A. entrance examination.

Must be in Graduate Studies in Translation and Interpreting; for permission to enroll, contact oes@umd.edu

XGE1	Rosalinda Meza-Steel Sa 2:00pm - 3:15pm *Biweekly. Start Date: 02-01.*	Seats (Total: 16) SKN 3118
XGS1	Rosalinda Meza-Steel Sa 3:15pm - 4:15pm *Biweekly. Start Date: 02-01.*	Seats (Total: 16) SKN 3118

COMM633 **Global Public Relations**

Credits: 3

Grading Method: Regular,
Audit, Sat-Fail

Credit only granted for: COMM633 or JOUR633. Formerly: JOUR633.

Application of principles of public relations to countries or regions with different cultures, political systems, economic systems, levels of development, media systems, and levels of activism.

0101	Erich Sommerfeldt W 6:30pm - 9:30pm	Seats (Total: 15) SKN 2127

COMM637 **Professional Practice Forum in Translation: Career Portfolio and Exams**

Credits: 1

Grading Method: Regular,
Audit, Sat-Fail

Prerequisite: Admissions test for second year courses; and (COMM659 and COMM679); and permission of ARHU-Communication department.

Serves as final preparation for entry into the profession through development of career portfolio to meet summative degree requirement and development of strategies for gaining work as a professional translator. Prepares participants for degree examinations and employer tests through the review of previous exam material and employer testing requirements. Serves as venue for degree examinations, career goal setting and planning for future employment. Participants present and defend career portfolio as summative requirement for MA in translation; MA in Trans. and Localization Project.

Must be in Graduate Studies in Translation and Interpreting; for permission to enroll, contact oes@umd.edu

Click here for more course information.

PG01	Mollie Kaufer, Miriam Stanicic	Seats (Total: 16)
	Sa 9:00am - 10:10am	SKN 3117
	Sa 10:15am - 11:15am	SKN 2127
	Dates for all classes: 02-08, 02-22, 03-07, 04-04, 04-18, 05-02.	

COMM639 **Fundamentals of Translation**

Credits: 1-6 Grading Method: Regular, Audit, Sat-Fail

Develops a systematic, reflective approach to translation involving both the written and spoken word. Provides an overview of domains of translation, associated text categories and translation tasks. Develops strategies to identify, analyze and resolve translation challenges in specific, authentic,real-world contexts. Working with a series of current texts, explores general translation concepts and language-specific strategies. Includes sight translation exercises and introduction to translation resources and computer tools used in the translators workplace.

Contact department for information to register for this course.

COMM639A **Fundamentals of Translation; METHODOLOGY**

Credits: 1-6 Grading Method: Regular, Audit, Sat-Fail

Develops a systematic, reflective approach to translation involving both the written and spoken word. Provides an overview of domains of translation, associated text categories and translation tasks. Develops strategies to identify, analyze and resolve translation challenges in specific, authentic,real-world contexts. Working with a series of current texts, explores general translation concepts and language-specific strategies. Includes sight translation exercises and introduction to translation resources and computer tools used in the translators workplace.

XG01	Eva Vilarrubi	Seats (Total: 16)
	F 6:00pm - 7:50pm	SKN 3118
	Biweekly. Start Date: 01-31.	

COMM639F **Fundamentals of Translation; Methodology: Translation: French into English/English into French**

Credits: 1 Grading Method: Regular, Audit, Sat-Fail

Develops a systematic, reflective approach to translation involving both the written and spoken word. Provides an overview of domains of translation, associated text categories and translation tasks. Develops strategies to identify, analyze and resolve translation challenges in specific, authentic,real-world contexts. Working with a series of current texts, explores general translation concepts and language-specific strategies. Includes sight translation exercises and introduction to translation resources and computer tools used in the translators workplace.

Contact department for information to register for this course.

COMM639G **Fundamentals of Translation; Sight Translation: French into English/English into French**

Credits: 1 Grading Method: Regular, Audit, Sat-Fail

Develops a systematic, reflective approach to translation involving both the written and spoken word. Provides an overview of domains of translation, associated text categories and translation tasks. Develops strategies to identify, analyze and resolve translation challenges in specific, authentic,real-world contexts. Working with a series of current texts, explores general translation concepts and language-specific strategies. Includes sight translation exercises and introduction to translation resources and computer tools used in the translators workplace.

Contact department for information to register for this course.

COMM649 **Translation for Specific Domains**

Credits: 2-6 Grading Method: Regular, Audit, Sat-Fail

Builds upon the systematic, reflective approach introduced in Fundamentals of Translation by addressing the development of translation skills required for specialization in specific domains. In written and sight translation exercises include researching specialized subject material, developing and maintaining terminology, and consulting experts in the field. Includes authentic, real-world translation projects in translation teams. Overview of computer-assisted translation tools and continued work on sight translation enable higher levels of productivity under time constraints.

Must be in Graduate Studies in Translation and Interpreting; for permission to enroll, contact oes@umd.edu

PG01	Hagar Attia	Seats (Total: 24)
	Contact instructor or department for details.	

COMM649A **Translation for Specific Domains; Methodology**

Credits: 2-6

Grading Method: Regular, Audit, Sat-Fail

Builds upon the systematic, reflective approach introduced in Fundamentals of Translation by addressing the development of translation skills required for specialization in specific domains. In written and sight translation exercises include researching specialized subject material, developing and maintaining terminology, and consulting experts in the field. Includes authentic, real-world translation projects in translation teams. Overview of computer-assisted translation tools and continued work on sight translation enable higher levels of productivity under time constraints.

Must be in Graduate Studies in Translation and Interpreting; for permission to enroll, contact oes@umd.edu

XG01	Eva Vilarrubi	Seats (Total: 16)
	F 6:00pm - 7:50pm	SKN 3118
	Biweekly. Start Date: 01-31.	

COMM649M **Translation for Specific Domains; Spanish into English/English into Spanish**

Credits: 2

Grading Method: Regular, Audit, Sat-Fail

Builds upon the systematic, reflective approach introduced in Fundamentals of Translation by addressing the development of translation skills required for specialization in specific domains. In written and sight translation exercises include researching specialized subject material, developing and maintaining terminology, and consulting experts in the field. Includes authentic, real-world translation projects in translation teams. Overview of computer-assisted translation tools and continued work on sight translation enable higher levels of productivity under time constraints.

Must be in Graduate Studies in Translation and Interpreting; for permission to enroll, contact oes@umd.edu

XGE1	Eva Vilarrubi	Seats (Total: 16)
	F 3:00pm - 3:50pm	SKN 3117
	Contact instructor or department for details.	
XGS1	Joseph Mazza	Seats (Total: 10)
	Tu 7:00pm - 8:50pm	PLS 1164
	Spanish into English. Meets biweekly, start date: 01-28.	

COMM649N **Translation for Specific Domains; Sight Translation; Spanish into English/English into Spanish**

Credits: 2

Grading Method: Regular,
Audit, Sat-Fail

Builds upon the systematic, reflective approach introduced in Fundamentals of Translation by addressing the development of translation skills required for specialization in specific domains. In written and sight translation exercises include researching specialized subject material, developing and maintaining terminology, and consulting experts in the field. Includes authentic, real-world translation projects in translation teams. Overview of computer-assisted translation tools and continued work on sight translation enable higher levels of productivity under time constraints.

Must be in Graduate Studies in Translation and Interpreting; for permission to enroll, contact oes@umd.edu

XGE1	Eva Vilarrubi F 4:00pm - 4:30pm Class time/details on ELMs	Seats (Total: 16) SKN 3117 ONLINE	Discussion
XGS1	Rosalinda Meza-Steel Sa 12:30pm - 1:30pm Class time/details on ELMs *Biweekly. Start Date: 02-01.*	Seats (Total: 16) SKN 3117 ONLINE	Discussion

COMM655 **Seminar in Speechwriting**

Credits: 3

Grading Method: Regular,
Audit, Sat-Fail

Formerly: SPCH655.

Theoretical and practical aspects of speechwriting at an advanced level.

PLF1	Shawn Parry-Giles, Misti Yang Class time/details on ELMs *Restricted to students in the Enhanced English Fluency Program.*	Seats (Total: 20) ONLINE	

COMM657 **Professional Practice Forum in Interpreting: Career Portfolio and Exams**

Credits: 1

Grading Method: Regular,
Audit, Sat-Fail

Prerequisite: COMM719, COMM769, and COMM729; and admissions test for second-year courses; and permission of ARHU-Communication department.

Serves as final preparation for entry into the profession through development of strategies for gaining work as a professional translator. Prepares participants for degree examinations and employer tests through the review of previous exam material and employer testing requirements. Serves as venue for degree examinations, career goal setting and planning for future employment. Participants present and defend career portfolio and summative requirement for degree.

Must be in Graduate Studies in Translation and Interpreting; for permission to enroll, contact oes@umd.edu

Click here for more course information.

PG01	Miriam Stanicic, Mollie Kaufer	Seats (Total: 16)
	Sa 9:00am - 10:10am Sa 10:15am - 11:15am	SKN 3117 SKN 2127
	Dates for all classes: 02-08, 02-22, 03-07, 04-04, 04-18, 05-02.	

COMM659 **Translation for Language-Specific Markets**

Credits: 1-3

Grading Method: Regular, Audit, Sat-Fail

Builds translation skills to a highly professional level by developing autonomy in completing authentic, real-world translation projects based upon the reflective approach developed in the first-year curriculum. Develops one or more specializations. Completion of individual and group projects covering all aspects of professional translation from subject matter research, terminology work, and use of computer-assisted translation tools. Sight translation and timed exercises to increase production and meet deadlines.

Must be in Graduate Studies in Translation and Interpreting; for permission to enroll, contact oes@umd.edu

PG01	Hagar Attia	Seats (Total: 30)
	Contact instructor or department for details.	

COMM659B **Translation for Language-Specific Markets; Chinese into English/English into Chinese**

Credits: 1

Grading Method: Regular, Audit, Sat-Fail

Builds translation skills to a highly professional level by developing autonomy in completing authentic, real-world translation projects based upon the reflective approach developed in the first-year curriculum. Develops one or more specializations. Completion of individual and group projects covering all aspects of professional translation from subject matter research, terminology work, and use of computer-assisted translation tools. Sight translation and timed exercises to increase production and meet deadlines.

Must be in Graduate Studies in Translation and Interpreting; for permission to enroll, contact oes@umd.edu

XGC1	Irina Knizhnik Tu 4:00pm - 5:50pm *Chinese into English. Biweekly.*	Seats (Total: 10) PLS 1115
XGE1	Min Eu Th 10:30am - 12:30pm *English into Chinese. Biweekly.*	Seats (Total: 10) SKN 3117

COMM659G **Translation for Language-Specific Markets; Spanish into English/English into Spanish**

Credits: 1 Grading Method: Regular, Audit, Sat-Fail

Builds translation skills to a highly professional level by developing autonomy in completing authentic, real-world translation projects based upon the reflective approach developed in the first-year curriculum. Develops one or more specializations. Completion of individual and group projects covering all aspects of professional translation from subject matter research, terminology work, and use of computer-assisted translation tools. Sight translation and timed exercises to increase production and meet deadlines.

Must be in Graduate Studies in Translation and Interpreting; for permission to enroll, contact oes@umd.edu

XGE1	Eva Vilarrubi F 3:00pm - 3:50pm	Seats (Total: 16) SKN 3117
XGS1	Joseph Mazza Tu 7:00pm - 8:50pm	Seats (Total: 10) PLS 1164

COMM659P **Translation for Language-Specific Markets; Portuguese into English/English into Portuguese**

Credits: 1 Grading Method: Regular, Audit, Sat-Fail

Builds translation skills to a highly professional level by developing autonomy in completing authentic, real-world translation projects based upon the reflective approach developed in the first-year curriculum. Develops one or more specializations. Completion of individual and group projects covering all aspects of professional translation from subject matter research, terminology work, and use of computer-assisted translation tools. Sight translation and timed exercises to increase production and meet deadlines.

Must be in Graduate Studies in Translation and Interpreting; for permission to enroll, contact oes@umd.edu

XGE1	Mirna Soares Andrade Tu 6:30pm - 7:30pm Contact instructor or department for details. *English into Portuguese. Start Date: TBA*	Seats (Total: 16) SKN 3117

COMM669 **Professional Practice Forum in Translation: Practicum**

Credits: 1-3

Grading Method: Regular, Audit, Sat-Fail

Provides opportunities to complete real-world translation projects on campus and in the public service, legal, business, and political communities as translators, project managers and translators/reviewers working on group projects. Collaboration with participants in the interpreting practicum is also sought to prepare multilingual texts for practicum events and familiarize participants with conference translation. Complements Translation for Specific Markets, and practicum projects are included in course and career reflective practice portfolios. Requires independent study plan agreed with course instructor.

Must be in Graduate Studies in Translation and Interpreting; for permission to enroll, contact oes@umd.edu

PG01	Esperanza Pombo Lopez-Barron Contact instructor or department for details. *Will meet twice on TBA.*	Seats (Total: 16)

COMM683 **Intercultural Communication Theory**

Credits: 3

Grading Method: Regular, Audit, Sat-Fail

An in-depth coverage of the essential theories of intercultural communication is provided.

Must be in Graduate Studies in Translation and Interpreting; for permission to enroll, contact oes@umd.edu

Click here for more course information.

PG01	Raphael Mazzone Th 2:00pm - 4:50pm	Seats (Total: 16) SKN 3118

COMM688 **Communication Field Experience**

(Perm req)

Credits: 1-6

Grading Method: Regular, Audit, Sat-Fail

Applications of communication principles and research in professional communication settings.

Contact department for information to register for this course.

COMM698 **Special Problems in Communication**

(Perm req)

Credits: 1-3

Grading Method: Regular, Audit, Sat-Fail

Contact department for information to register for this course.

COMM701 **Quantitative Methods in Communication Research**

Credits: 3

Grading Method: Regular, Audit, Sat-Fail

Prerequisite: COMM700. Formerly: SPCH701.

Logic and methods of quantitative data collection and statistical analysis as applied to communication studies. Research strategies for communications: experimentation, survey research, field research, and content analysis.

0101	Dale Hample	Seats (Total: 15)
	W 3:30pm - 6:30pm	SKN 2127

COMM708 **Professional Communication: Rhetoric and Context**

Credits: 3

Grading Method: Regular, Sat-Fail

A skills-based course in speaking and writing in English for professional communicators adapting to a diversity of contexts, including business, health, law, politics, and science. Focus on diversifying the different contexts in which speaking and writing take place. Designed to develop an ability to adapt messages to a diversity of professional communication contexts, address the role of culture in adapting messages to a diversity of professional communication contexts, hone English speaking and writing skills based on a diversity of language registers, gain experience working with technical vocabulary, enhance analytical skills, strengthen research skills, enhance critical thinking skills, develop software technology skills.

PLF1	Mollie Kaufer	Seats (Total: 20)
	Class time/details on ELMs	ONLINE
	Restricted to students in the Enhanced English Fluency Program.	

COMM710 **Translation and Localization Project Management**

Credits: 3

Grading Method: Regular, Audit, Sat-Fail

Prerequisite: Admissions test for second year courses; and permission of ARHU-Communication department.

Introduces basic principles of project management in the translation industry based upon globalization and localization processes for software, websites, and other translation-driven products. Focuses on information technology and workflow in large-scale multilingual projects. Examines planning, execution, and evaluation processes grounded in best practices and standards of the translation and localization industry.

Must be in Graduate Studies in Translation and Interpreting; for permission to enroll, contact oes@umd.edu

Click here for more course information.

PG01	Thomas Alwood	Seats (Total: 16)
	Class time/details on ELMs	ONLINE

COMM719 **Advanced Consecutive Interpretation**

Credits: 2-3 Grading Method: Regular, Audit, Sat-Fail

Builds consecutive interpreting skills to a highly professional level by sharpening listening, processing, memory, note-taking, and delivery skills, enabling interpretation of highly complex material requiring particular attention to nuance, tone, and style. Includes dialogue and monologue interpreting exercises with specialized subject material. Participants emerge from the course as reflective practitioners with the simultaneous interpreting skills required to perform competently in real-world settings.

Must be in Graduate Studies in Translation and Interpreting; for permission to enroll, contact oes@umd.edu

PG01	Hagar Attia	Seats (Total: 30)
	Contact instructor or department for details.	

COMM719A **Advanced Consecutive Interpretation; Arabic into English/English into Arabic**

Credits: 1 Grading Method: Regular, Audit, Sat-Fail

Builds consecutive interpreting skills to a highly professional level by sharpening listening, processing, memory, note-taking, and delivery skills, enabling interpretation of highly complex material requiring particular attention to nuance, tone, and style. Includes dialogue and monologue interpreting exercises with specialized subject material. Participants emerge from the course as reflective practitioners with the simultaneous interpreting skills required to perform competently in real-world settings.

Must be in Graduate Studies in Translation and Interpreting; for permission to enroll, contact oes@umd.edu

XGA1	Ihab Ali W 5:00pm - 6:10pm	Seats (Total: 16) SKN 3117
XGE1	Ihab Ali W 6:15pm - 7:15pm	Seats (Total: 16) SKN 3117

COMM719B **Advanced Consecutive Interpretation; Chinese into English/English into Chinese**

Credits: 1

Grading Method: Regular, Audit, Sat-Fail

Builds consecutive interpreting skills to a highly professional level by sharpening listening, processing, memory, note-taking, and delivery skills, enabling interpretation of highly complex material requiring particular attention to nuance, tone, and style. Includes dialogue and monologue interpreting exercises with specialized subject material. Participants emerge from the course as reflective practitioners with the simultaneous interpreting skills required to perform competently in real-world settings.

Must be in Graduate Studies in Translation and Interpreting; for permission to enroll, contact oes@umd.edu

XGC1	Min Eu Th 8:30am - 10:30am *Biweekly. Start Date: 02-06.*	Seats (Total: 16) SKN 3117
XGE1	Min Eu Th 10:30am - 12:30pm *Biweekly. Start Date: 02-06.*	Seats (Total: 16) SKN 3117

COMM719D **Advanced Consecutive Interpretation; Russian into English/English into Russian**

Credits: 1

Grading Method: Regular, Audit, Sat-Fail

Builds consecutive interpreting skills to a highly professional level by sharpening listening, processing, memory, note-taking, and delivery skills, enabling interpretation of highly complex material requiring particular attention to nuance, tone, and style. Includes dialogue and monologue interpreting exercises with specialized subject material. Participants emerge from the course as reflective practitioners with the simultaneous interpreting skills required to perform competently in real-world settings.

Must be in Graduate Studies in Translation and Interpreting; for permission to enroll, contact oes@umd.edu

XGE1	Julia Lavilla-Nossova	Seats (Total: 16)
	Contact instructor or department for details.	
	English into Russian. Biweekly. Start Date: 01-27.	
XGR1	Nikolai Sorokin	Seats (Total: 16)
	Tu 10:00am - 11:50am	SKN 3118
	Russian into English. Biweekly. Start date: 01-28.	

COMM719E **Advanced Consecutive Interpretation; Spanish into Russian/Russian into Spanish**

Credits: 1 Grading Method: Regular, Audit, Sat-Fail

Builds consecutive interpreting skills to a highly professional level by sharpening listening, processing, memory, note-taking, and delivery skills, enabling interpretation of highly complex material requiring particular attention to nuance, tone, and style. Includes dialogue and monologue interpreting exercises with specialized subject material. Participants emerge from the course as reflective practitioners with the simultaneous interpreting skills required to perform competently in real-world settings.

Must be in Graduate Studies in Translation and Interpreting; for permission to enroll, contact oes@umd.edu

XGS1	Sergei Chernov	Seats (Total: 16)
	Su 10:30am - 11:30am	SKN 3118
	Spanish into Russian.	

COMM719G **Advanced Consecutive Interpretation; Korean into English/English into Korean**

Credits: 1 Grading Method: Regular, Audit, Sat-Fail

Builds consecutive interpreting skills to a highly professional level by sharpening listening, processing, memory, note-taking, and delivery skills, enabling interpretation of highly complex material requiring particular attention to nuance, tone, and style. Includes dialogue and monologue interpreting exercises with specialized subject material. Participants emerge from the course as reflective practitioners with the simultaneous interpreting skills required to perform competently in real-world settings.

Must be in Graduate Studies in Translation and Interpreting; for permission to enroll, contact oes@umd.edu

XGE1	Lee Boese	Seats (Total: 16)
	Sa 1:00pm - 3:10pm	ONLINE
	English into Korean. Start Date: TBA.	

XGK1	Lee Boese Sa 10:00am - 12:10pm *Korean into English. Start Date: TBA.*	Seats (Total: 16) ONLINE

COMM724 **Seminar in Organizational Communication**

Credits: 3 Grading Method: Regular, Audit, Sat-Fail

Restriction: Permission of instructor. Formerly: SPCH724.

Theories and problems of human communication within, between, and/or among formal organizations will be emphasized.

0101	Lindsey Anderson Th 7:00pm - 10:00pm	Seats (Total: 15) SKN 2127

COMM748P **The Rhetoric of the Presidency**

Credits: 3 Grading Method: Regular, Audit, Sat-Fail

The study of the historical and contemporary rhetoric of the presidency in appropriate historical and political contexts. Scholarship related to public address studies and theories of the presidency will be featured.

0101	Shawn Parry-Giles Th 3:30pm - 6:30pm	Seats (Total: 15) SKN 2127

COMM749 **Advanced Simultaneous Interpretation**

Credits: 1-3 Grading Method: Regular, Audit, Sat-Fail

Builds simultaneous interpreting skills to a highly professional level, including highly complex material requiring particular attention to nuance, tone, and style. Resolves any remaining challenges of split attention, ear-voice span, memory and delivery / presentation. Introduces simultaneous interpretation with text, based upon sight translation techniques. Participants emerge from the course as reflective practitioners with the simultaneous interpreting skills required to perform competently in real-world settings.

Must be in Graduate Studies in Translation and Interpreting; for permission to enroll, contact oes@umd.edu

PG01	Hagar Attia	Seats (Total: 16)
	Contact instructor or department for details.	

COMM749A **Advanced Simultaneous Interpretation; Arabic into English/English into Arabic**

Credits: 1

Grading Method: Regular, Audit, Sat-Fail

Builds simultaneous interpreting skills to a highly professional level, including highly complex material requiring particular attention to nuance, tone, and style. Resolves any remaining challenges of split attention, ear-voice span, memory and delivery / presentation. Introduces simultaneous interpretation with text, based upon sight translation techniques. Participants emerge from the course as reflective practitioners with the simultaneous interpreting skills required to perform competently in real-world settings.

Must be in Graduate Studies in Translation and Interpreting; for permission to enroll, contact oes@umd.edu

XGA1	Ihab Ali	Seats (Total: 16)
	Sa 10:15am - 11:15am	SKN 3118
XGE1	Ihab Ali	Seats (Total: 16)
	Sa 11:30am - 12:30pm	SKN 3118

COMM749B **Advanced Simultaneous Interpretation; Chinese into English/English into Chinese**

Credits: 1

Grading Method: Regular, Audit, Sat-Fail

Builds simultaneous interpreting skills to a highly professional level, including highly complex material requiring particular attention to nuance, tone, and style. Resolves any remaining challenges of split attention, ear-voice span, memory and delivery / presentation. Introduces simultaneous interpretation with text, based upon sight translation techniques. Participants emerge from the course as reflective practitioners with the simultaneous interpreting skills required to perform competently in real-world settings.

Must be in Graduate Studies in Translation and Interpreting; for permission to enroll, contact oes@umd.edu

XGC1	Ruby Lai	Seats (Total: 16)
	F 9:00am - 11:10am	SKN 3118
	Biweekly. Start Date: 01-31.	

XGE1	Ruby Lai F 11:15am - 1:15pm *Biweekly. Start Date: 01-31.*	Seats (Total: 16) SKN 3118

COMM749D **Advanced Simultaneous Interpretation; Russian into English/English into Russian**

Credits: 1 Grading Method: Regular, Audit, Sat-Fail

Builds simultaneous interpreting skills to a highly professional level, including highly complex material requiring particular attention to nuance, tone, and style. Resolves any remaining challenges of split attention, ear-voice span, memory and delivery / presentation. Introduces simultaneous interpretation with text, based upon sight translation techniques. Participants emerge from the course as reflective practitioners with the simultaneous interpreting skills required to perform competently in real-world settings.

Must be in Graduate Studies in Translation and Interpreting; for permission to enroll, contact oes@umd.edu

XGE1	Sergei Chernov Su 1:15pm - 2:15pm *English into Russian.*	Seats (Total: 16) SKN 3118
XGR1	Nikolai Sorokin Tu 12:00pm - 1:50pm *Russian into English. Biweekly. Start Date: 01-28.*	Seats (Total: 16) SKN 3118

COMM749E **Advanced Simultaneous Interpretation; Spanish into Russian/Russian into Spanish**

Credits: 1 Grading Method: Regular, Audit, Sat-Fail

Builds simultaneous interpreting skills to a highly professional level, including highly complex material requiring particular attention to nuance, tone, and style. Resolves any remaining challenges of split attention, ear-voice span, memory and delivery / presentation. Introduces simultaneous interpretation with text, based upon sight translation techniques. Participants emerge from the course as reflective practitioners with the simultaneous interpreting skills required to perform competently in real-world settings.

Must be in Graduate Studies in Translation and Interpreting; for permission to enroll, contact oes@umd.e

XGS1	Sergei Chernov Su 2:15pm - 3:15pm *Spanish into Russian.*	Seats (Total: 16) SKN 3118

COMM749K **Advanced Simultaneous Interpretation; Korean into English/English into Korean**

Credits: 1

Grading Method: Regular, Audit, Sat-Fail

Builds simultaneous interpreting skills to a highly professional level, including highly complex material requiring particular attention to nuance, tone, and style. Resolves any remaining challenges of split attention, ear-voice span, memory and delivery / presentation. Introduces simultaneous interpretation with text, based upon sight translation techniques. Participants emerge from the course as reflective practitioners with the simultaneous interpreting skills required to perform competently in real-world settings.

Must be in Graduate Studies in Translation and Interpreting; for permission to enroll, contact oes@umd.e

XGE1	Yong-Ha Lee M 10:00am - 12:10pm *English into Korean. Biweekly. Start Date 01-27.*	Seats (Total: 16) SKN 3118
XGK1	Yong-Ha Lee M 12:15pm - 2:15pm *Korean into English. Biweekly. Start Date 01-27.*	Seats (Total: 16) SKN 3118

COMM759 **Professional Practice Forum in Interpreting: Practicum**

Credits: 1-3

Grading Method: Regular, Audit, Sat-Fail

Provides opportunities to interpret consecutively and simultaneously in real-world settings on campus and in the public service, legal, business, and political communities. Develops team leader skills by organizing and convening an event or series of events (conference, debate, or negotiation), selecting topics and delegates, and preparing speeches and arguments to deliver and interpret. Collaboration with participants in M.A. translation courses is sought. Requires independent study plan agreed with course instructor.

Must be in Graduate Studies in Translation and Interpreting; for permission to enroll, contact oes@umd.edu

PG01	Esperanza Pombo Lopez-Barron	Seats (Total: 16)
	Contact instructor or department for details.	
	Will meet twice on TBA.	

COMM760 **Seminar in Political Communication**

Credits: 3 Grading Method: Regular, Audit, Sat-Fail

Formerly: SPCH760.

A blend of theory and practice to integrate rhetorical-critical theory and empirical methods with politics. Practitioners in political communication will be drawn in as resource persons. Students will map the communication strategy for candidates and analyze actual campaign strategies.

0101	Kristjana Maddux	Seats (Total: 15)
	M 6:30pm - 9:30pm	SKN 2127

COMM762 **The Rhetoric of Political Institutions**

Credits: 3 Grading Method: Regular, Sat-Fail

The role of discourse in major political institutions is examined. The specific institutional focus may change from instructor to instructor. Examples include Congress, the courts, or the state legislatures.

Must be in Graduate Studies in Translation and Interpreting; for permission to enroll, contact oes@umd.edu

Click here for more course information.

PG01	Trevor Parry-Giles, David Sawyer	Seats (Total: 16)
	Th 5:30pm - 8:30pm	SKN 3118

COMM775 **Seminar in Persuasion and Attitude Change**

Credits: 3 Grading Method: Regular, Audit, Sat-Fail

Prerequisite: Permission of ARHU-Communication department. Formerly: SPCH775.

This seminar will concentrate on the problem of making message strategy decisions. Course content will consist of study of both theoretical and empirical research on attitude and attitude change in persuasive communication.

0101	Xiaoli Nan Th 3:30pm - 6:00pm	Seats (Total: 15) SKN 3117

COMM789A **Seminar: Special Topics in Intercultural Communication; Advanced Political and Legal Communication**

Credits: 3 Grading Method: Regular, Audit, Sat-Fail

Explores special topic areas within the study of intercultural communication, such as culture and conflict, intercultural negotiation, cross-cultural relationships.

Must be in Graduate Studies in Translation and Interpreting; for permission to enroll, contact oes@umd.edu

PG01	Trevor Parry-Giles, Carol Gizell Velandia Pardo M 5:00pm - 8:15pm	Seats (Total: 16) SKN 3117

COMM798 **Independent Study**

(Perm req)

Credits: 1-3 Grading Method: Regular, Audit, Sat-Fail

An individual course designed for intensive study or research of problems in communication.

Contact department for information to register for this course.

COMM798B **Independent Study; Text Analysis and Intensive Writing**

Credits: 1-3 Grading Method: Regular, Audit, Sat-Fail

An individual course designed for intensive study or research of problems in communication.

Must be in Graduate Studies in Translation and Interpreting; for permission to enroll, contact oes@umd.edu

PG01	Mollie Kaufer Contact instructor or department for details. *English.*	Seats (Total: 16)
PG02	Eva Vilarrubi Tu 3:00pm - 4:15pm *Spanish.*	Seats (Total: 16) SKN 3117

COMM798F **Independent Study; Enhanced English Fluency**

Credits: 1-3 Grading Method: Regular, Audit, Sat-Fail

An individual course designed for intensive study or research of problems in communication.

Must be in Graduate Studies in Translation and Interpreting; for permission to enroll, contact oes@umd.edu

PG01	Mollie Kaufer	Seats (Total: 16)
	Contact instructor or department for details.	
	By appointment.	

COMM798I **Independent Study; Consecutive Interpreting Skills**

Credits: 1-2 Grading Method: Regular, Audit, Sat-Fail

An individual course designed for intensive study or research of problems in communication.

Must be in Graduate Studies in Translation and Interpreting; for permission to enroll, contact oes@umd.edu

PG01	Ihab Ali, Julia Lavilla-Nossova, Hagar Attia	Seats (Total: 16)
	Contact instructor or department for details.	

COMM798N **Independent Study; Localization Business Fundamentals**

Credits: 3 Grading Method: Regular, Audit, Sat-Fail

An individual course designed for intensive study or research of problems in communication.

Must be in Graduate Studies in Translation and Interpreting; for permission to enroll, contact oes@umd.edu

PG01	Jon Ritzdorf	Seats (Total: 16)
	W 4:00pm - 8:30pm	SKN 3115
	Start Date: Jan. 29	

COMM799 **Master's Thesis Research**

(Perm req)

Credits: 1-6 Grading Method: Sat-Fail

Contact department for information to register for this course.

COMM888 **Doctoral Practicum in Communication**

(Perm req)

Credits: 3-9 Grading Method: Regular, Audit, Sat-Fail

Analysis of professional activity through personal observation. Evaluation of the purpose, process, effectiveness, and efficiency of professional activity. Recommendations for training and further research.

Contact department for information to register for this course.

COMM889 **Doctoral Tutorial in Communication**

(Perm req)

Credits: 3-9 Grading Method: Regular, Audit, Sat-Fail

Individual research in communication.

Contact department for information to register for this course.

COMM898 **Pre-Candidacy Research**

(Perm req)

Credits: 1-8 Grading Method: Regular, Sat-Fail

Contact department for information to register for this course.

COMM899 **Doctoral Dissertation Research**

(Perm req)

Credits: 6 Grading Method: Sat-Fail

Contact department for information to register for this course.

CPBE College Park Scholars-Business, Society, and Economy Spring 2020

CPBE230 **College Park Scholars: Business, Society & the Economy Internship Practicum**

Credits: 1-3 Grading Method: Regular, Pass-Fail

Prerequisite: CPBE100. Restriction: Students must be matriculated into the College Park Scholars Business, Society & the Economy (CPBE) program.

Supervised internship project in an area related to business, society and the economy.

0101	Mark Wellman, Claudia Donnelly	Seats (Total: 45)
	Tu 6:00pm - 8:00pm	Location: TBA

CPBE240 **College Park Scholars: Business, Society & the Economy Service-Learning Practicum**

Credits: 1-3

Grading Method: Regular, Pass-Fail

Prerequisite: CPBE100. Restriction: Students must be matriculated into the College Park Scholars Business, Society & the Economy (CPBE) program.

Supervised Service-Learning project in an area related to business, society and the economy.

0101	Mark Wellman, Claudia Donnelly Tu 6:00pm - 8:00pm	Seats (Total: 25) Location: TBA
0102	Mark Wellman, Claudia Donnelly Contact instructor or department for details.	Seats (Total: 10)

CPBE250 **College Park Scholars: Business, Society & the Economy Research Practicum**

Credits: 1-3

Grading Method: Regular, Pass-Fail

Prerequisite: CPBE100. Restriction: Students must be matriculated into the College Park Scholars Business, Society & the Economy (CPBE) program.

Supervised research project in an area related to business, society and the economy.

0101	Mark Wellman Tu 6:00pm - 8:00pm	Seats (Total: 20) Location: TBA

CPBE270 **College Park Scholars: Business, Society & the Economy Education Abroad Practicum**

Credits: 1-3

Grading Method: Regular, Pass-Fail

General Education: DSSP, DVCC, SCIS

Prerequisite: CPBE100. Restriction: Students must be matriculated into the College Park Scholars Business, Society & the Economy (CPBE) program.

Education-abroad experience with content in areas related to business, society and/or the economy.

Contact department for information to register for this course.

CPET College Park Scholars-Environment, Technology & Economy Spring 2020

CPET101 **College Park Scholars: Environment, Technology & Economy First-Year Colloquium II**

Credits: 1

Grading Method: Regular, Pass-Fail

Prerequisite: CPET100. Restriction: Students must be enrolled in the College Park Scholars Environment, Technology & Economy (CPET) program.

Introductory colloquium II: Continued examination of issues related to the convergence of the environment, technology and the economy. Group projects in sustainable development.

0101	Aya Gandolfo, Timothy Knight, Marcella Kim, Nina Jeffries, Faith Taylor Th 5:10pm - 6:30pm	Seats (Total: 80) ESJ 1202

CPET230 **College Park Scholars: Environment, Technology & Economy Internship Practicum**

Credits: 1-3 Grading Method: Regular, Pass-Fail

Prerequisite: CPET200. Restriction: Students must be matriculated into the College Park Scholars Environment, Technology & the Economy (CPET) program.

Supervised internship project in an area related to the environment, technology and the economy.

0101	Aya Gandolfo, Timothy Knight, Marcella Kim, Amogh Arun, Faith Taylor M 5:10pm - 6:30pm	Seats (Total: 58) CCC 1205

CPET240 **College Park Scholars: Environment, Technology & Economy Service-Learning Practicum**

Credits: 1-3 Grading Method: Regular, Pass-Fail

Restriction: Students must be matriculated into the College Park Scholars Environment, Technology & the Economy (CPET), Science, Technology & Society (CPSS), Arts (CPSA) and Business, Society, & Economy (CPBE) programs.

Supervised Service-Learning project in an area related to the environment, technology and the economy.

Restricted to students in the Environment, Technology, and Economy program (CPET).

0101	Marcella Kim, Timothy Knight, Aya Gandolfo, Amogh Arun, Faith Taylor M 5:10pm - 6:30pm	Seats (Total: 24) CCC 1205

CPET250 **College Park Scholars: Environment, Technology & Economy Research Practicum**

Credits: 1-3 Grading Method: Regular, Pass-Fail

Prerequisite: CPET200. Restriction: Students must be matriculated into the College Park Scholars Environment, Technology & the Economy (CPET) program.

Supervised research project in an area related to the environment, technology and the economy.

0101	Marcella Kim, Timothy Knight, Aya Gandolfo, Amogh Arun, Faith Taylor	Seats (Total: 14)
	M 5:10pm - 6:30pm	CCC 1205

CPGH College Park Scholars-Global Public Health Spring 2020

CPGH100 **College Park Scholars: Global Public Health First-Year Colloquium I**

Credits: 1 Grading Method: Regular, Pass-Fail

Restriction: Students must be enrolled in the College Park Scholars Global Public Health (CPGH) program.

Introductory colloquium: Examination of factors that determine the health status of populations around the world.

Contact department for information to register for this course.

CPGH101 **College Park Scholars: Global Public Health First-Year Colloquium II**

Credits: 1 Grading Method: Regular, Pass-Fail

Prerequisite: CPGH100. Restriction: Students must be enrolled in the College Park Scholars Global Public Health (CPGH) program.

Using case studies, students will examine necessary components to design successful public health interventions.

0101	Muhiuddin Haider, Reva Datar, Gislaine Hoyah	Seats (Total: 90)
	W 2:00pm - 3:15pm	CCC 1205

CPGH230 **College Park Scholars: Global Public Health - Internship Practicum**

Credits: 1-3 Grading Method: Regular, Pass-Fail

Prerequisite: CPGH200. Restriction: Students must be enrolled in the College Park Scholars Global Public Health (CPGH) program.

Supervised internship project in an interest area related to global public health.

0101	Gislaine Hoyah, Reva Datar, Elisabeth Maring, Muhiuddin Haider, Haley Axton M 3:00pm - 3:50pm	Seats (Total: 25) CCC 1100

CPGH240 **College Park Scholars: Global Public Health Service-Learning Practicum**

Credits: 1-3 Grading Method: Regular, Pass-Fail

Prerequisite: CPGH200. Restriction: Students must be enrolled in the College Park Scholars Global Public Health (CPGH) program.

Supervised Service-Learning project in an interest area related to global public health.

0101	Muhiuddin Haider, Elisabeth Maring, Haley Axton, Reva Datar, Gislaine Hoyah M 3:00pm - 3:50pm	Seats (Total: 30) CCC 1100

CPGH250 **College Park Scholars: Global Public Health Research Practicum**

Credits: 1-3 Grading Method: Regular, Pass-Fail

Prerequisite: CPGH200. Restriction: Students must be enrolled in the College Park Scholars Global Public Health (CPGH) program.

Supervised research project in an interest area related to global public health.

0101	Elisabeth Maring, Muhiuddin Haider, Haley Axton, Gislaine Hoyah, Reva Datar M 3:00pm - 3:50pm	Seats (Total: 22) CCC 1100

CPGH270 **College Park Scholars: Global Public Health Education Abroad Practicum**

Credits: 1-3 Grading Method: Regular, Pass-Fail

Prerequisite: CPGH200. Restriction: Students must be enrolled in the College Park Scholars Global Public Health (CPGH) program.

Education abroad experience in an interest area related to global public health.

0101	Elisabeth Maring, Muhiuddin Haider, Gislaine Hoyah, Haley Axton, Reva Datar M 3:00pm - 3:50pm	Seats (Total: 10) CCC 1100

CPJT College Park Scholars-Justice and Legal Thought — Spring 2020

CPJT101 **Colloquium in Justice and Legal Thought**

Credits: 1 Grading Method: Regular, Pass-Fail

An exploration of contemporary issues related to justice and legal thought.

0101	Erica Smith M 2:00pm - 3:15pm	Seats (Total: 75) CCC 1205

CPJT230 **Capstone for Justice and Legal Thought: Internship**

Credits: 2-3 Grading Method: Regular, Pass-Fail General Education: DSSP

The capstone of the four-semester College Park Scholars Justice and Legal thought citation program is an exploration of justice and law within a rigorous academic and experiential framework. Students must develop and perform practicum internships in professional law related settings. In all settings, students must interact directly with legal professionals in law related fields and through law-related institutions under the supervision of legal professionals and program staff. In conjunction with the experiential component, students will synthesize their experience within the learning outcomes of the Justice and Legal Thought Program through an innovative final project culminating in a poster presentation.

0101	Erica Smith Contact instructor or department for details.	Seats (Total: 25)

CPJT240 **Capstone for Justice and Legal Thought: Service-Learning**

Credits: 2 Grading Method: Regular, Pass-Fail General Education: DSSP

The capstone of the four-semester College Park Scholars Justice and Legal Thought citation program is an exploration of justice and law within a rigorous academic and experiential framework. Students must develop and perform practicum volunteer experiences in professional law related settings. In all settings, students must interact directly with legal professionals in law related fields and through law-related institutions under the supervision of legal professionals and program staff. In conjunctions with the experiential component, students will synthesize their experience within the learning outcomes of the Justice and Legal Thought program through an innovative final project culminating in a poster presentation.

0101	Erica Smith	Seats (Total: 25)
	Contact instructor or department for details.	

CPJT250 **Capstone for Justice and Legal Thought: Research**

Credits: 2 Grading Method: Regular, Pass-Fail General Education: DSSP

The capstone of the four-semester College Park Scholars Justice and Legal Thought citation program is an exploration of justice and law within a rigorous academic and experiential framework. Students must develop and perform applied research in a law related setting. Students must interact directly with legal professionals under the supervision of program staff. Students will synthesize their experience within the learning outcomes of the Justice and Legal Thought Program through an innovative final research project culminating in a poster presentation.

0101	Erica Smith	Seats (Total: 35)
	Contact instructor or department for details.	

CPMS College Park Scholars-Media, Self and Society Spring 2020

CPMS101 **College Park Scholars: Media, Self & Society First-Year Colloquium II**

Credits: 1 Grading Method: Regular, Pass-Fail

Prerequisite: CPMS100. Restriction: Students must be enrolled in the College Park Scholars Media, Self & Society (CPMS) program.

Examination of the media's coverage of topical issues.

0101	Mary Burns, Kelly Brower	Seats (Total: 95)
	Th 12:30pm - 1:45pm	CCC 1205

CPMS230 **College Park Scholars: Media, Self & Society - Internship Practicum**

Credits: 1-3 Grading Method: Regular, Pass-Fail

Prerequisite: CPMS101. Restriction: Students must be enrolled in the College Park Scholars Media, Self & Society (CPMS) program.

Supervised internship project in an area related to media, self and society.

0101	Mary Burns, Kelly Brower	Seats (Total: 75)
	Contact instructor or department for details.	

CPMS240 **College Park Scholars: Media, Self & Society - Service-Learning Practicum**

Credits: 1-3 Grading Method: Regular, Pass-Fail

Prerequisite: CPMS101. Restriction: Students must be enrolled in the College Park Scholars Media, Self & Society (CPMS) program.

Supervised Service-Learning project in an area related to media, self and society.

0101	Mary Burns, Kelly Brower	Seats (Total: 25)
	Contact instructor or department for details.	

CPPL College Park Scholars-Public Leadership Spring 2020

CPPL101 **College Park Scholars: Public Leadership First-Year Colloquium II**

Credits: 1 Grading Method: Regular, Pass-Fail

Prerequisite: CPPL100. Restriction: Students must be enrolled in the College Park Scholars Public Leadership (CPPL) program.

Continued examination of issues related to public leadership. Development of team, community-based learning project proposals.

0101	Susannah Washburn	Seats (Total: 80)
	W 3:30pm - 4:45pm	CCC 1205

CPSA College Park Scholars-Arts Spring 2020

CPSA101 **College Park Scholars: Arts First-Year Colloquium II**

Credits: 1 Grading Method: Regular, Pass-Fail

Prerequisite: CPSA100. Restriction: Students must be matriculated into the College Park Scholars Arts (CPSA) program.

Introductory colloquium II: Arts workshops and Arts Festival.

0101	Heather-Erin Bremenstuhl, Harold Burgess	Seats (Total: 75)
	M 6:00pm - 7:30pm	CCC 1100

CPSA149 **College Park Scholars: Arts Service-Learning Outreach**

Credits: 2

Grading Method: Regular, Pass-Fail

Service-Learning outreach to Prince George's County schools and non-profit agencies.

0101	Heather-Erin Bremenstuhl, Harold Burgess	Seats (Total: 20)
	Th 5:00pm - 7:00pm	CCC 1111

CPSA201 **College Park Scholars: Arts Second-Year Colloquium II**

Credits: 1

Grading Method: Regular, Pass-Fail

Prerequisite: CPSA200. Restriction: Students must be matriculated into the College Park Scholars Arts (CPSA) program.

Advanced colloquium II: Arts workshop and Arts Festival.

0101	Heather-Erin Bremenstuhl, Harold Burgess	Seats (Total: 75)
	Tu 6:00pm - 7:30pm	CCC 1205

CPSA240 **College Park Scholars: Arts Service-Learning Practicum**

Credits: 2

Grading Method: Regular, Pass-Fail

General Education: DSSP

Prerequisite: CPSA200. Restriction: Students must be matriculated into the College Park Scholars Arts (CPSA) program. Additional information: When paired with successful completion of CPSA 200, students will earn General Education Scholarship-in-Practice credit.

Supervised Service-Learning project in an area related to the arts.

0101	Heather-Erin Bremenstuhl, Harold Burgess	Seats (Total: 15)
	Th 5:00pm - 7:00pm	CCC 1111

CPSA250 **College Park Scholars: Arts Research Practicum**

Credits: 2

Grading Method: Regular, Pass-Fail

General Education: DSSP

Prerequisite: CPSA200. Restriction: Students must be matriculated into the College Park Scholars Arts (CPSA) program. Additional information: When paired with successful completion of CPSA 200, students will earn General Education Scholarship-in-Practice credit.

Supervised research project in an area related to the arts.

0101	Heather-Erin Bremenstuhl, Harold Burgess Th 2:00pm - 2:50pm Contact instructor or department for details.	Seats (Total: 15) CCC 1115
0201	Heather-Erin Bremenstuhl, Harold Burgess W 5:00pm - 5:50pm Contact instructor or department for details.	Seats (Total: 15) CCC 1115
0301	Heather-Erin Bremenstuhl, Harold Burgess W 2:00pm - 2:50pm Contact instructor or department for details.	Seats (Total: 15) CCC 1115

CPSA260 **College Park Scholars: Arts Peer-Teaching Practicum**

Credits: 2 Grading Method: Regular, Pass-Fail General Education: DSSP

Prerequisite: CPSA200. Restriction: Students must be matriculated into the College Park Scholars Arts (CPSA) program. Additional information: When paired with successful completion of CPSA 200, students will earn General Education Scholarship-in-Practice credit.

Supervised peer-teaching project in an area related to the arts.

0101	Heather-Erin Bremenstuhl, Harold Burgess Contact instructor or department for details.	Seats (Total: 10)
0201	Heather-Erin Bremenstuhl, Harold Burgess Contact instructor or department for details.	Seats (Total: 10)
0301	Heather-Erin Bremenstuhl, Harold Burgess Contact instructor or department for details.	Seats (Total: 10)

CPSD College Park Scholars-Science, Discovery & the Universe Spring 2020

CPSD100 **College Park Scholars: Science, Discovery & the Universe First-Year Colloquium A**

Credits: 1 Grading Method: Regular, Pass-Fail

Restriction: Students must be enrolled in the College Park Scholars Science, Discovery & the Universe (CPSD) program. Additional information: Both freshman colloquia (CPSD 100 and 101) are required for students to earn their College Park Scholars citations; however, they can be taken in any order during a student's first year.

Introductory colloquium: Examination of issues related to science, discovery and the universe.

Science and Pseudoscience.

0101	Erin Thomson, Alan Peel, Jennifer Lee Th 3:30pm - 4:30pm	Seats (Total: 40) CCC 1100

CPSD101 **College Park Scholars: Science, Discovery & the Universe First-Year Colloquium B**

Credits: 1 Grading Method: Regular, Pass-Fail

Restriction: Students must be enrolled in the College Park Scholars Science, Discovery & the Universe (CPSD) program. Additional information: Both freshman colloquia (CPSD 100 and 101) are required for students to earn their College Park Scholars citations; however, they can be taken in any order during a student's first year.

Introductory colloquium: Examination of the intersection of astronomy and culture; and the roles of science, exploration and communication in the process of discovery.

History and Culture of Astronomy.

0101	Erin Thomson, Alan Peel, Jennifer Lee Th 3:30pm - 4:30pm	Seats (Total: 40) CCC 1205

CPSD230 **College Park Scholars: Science, Discovery & the Universe - Internship Practicum**

Credits: 1-3 Grading Method: Regular, Pass-Fail

Prerequisite: CPSD200. Restriction: Students must be enrolled in the College Park Scholars Science, Discovery & the Universe (CPSD) program.

Supervised internship project in an interest area related to science, discovery and the universe.

0101	Erin Thomson, Jennifer Lee, Alan Peel Th 5:30pm - 6:30pm	Seats (Total: 25) CCC 1100

CPSD240 **College Park Scholars: Science, Discovery & the Universe - Service-Learning Practicum**

Credits: 1-3 Grading Method: Regular, Pass-Fail

Prerequisite: CPSD200. Restriction: Students must be enrolled in the College Park Scholars Science, Discovery & the Universe (CPSD) program.

Supervised Service-Learning project in an interest area related to science, discovery and the universe.

0101	Erin Thomson, Alan Peel, Jennifer Lee	Seats (Total: 10)
	Th 5:30pm - 6:30pm	CCC 1100

CPSD250 **College Park Scholars: Science, Discovery & the Universe - Research Practicum**

Credits: 1-3 Grading Method: Regular, Pass-Fail

Prerequisite: CPSD200. Restriction: Students must be enrolled in the College Park Scholars Science, Discovery & the Universe (CPSD) program.

Supervised research project in an interest area related to science, discovery and the universe.

0101	Alan Peel, Erin Thomson, Jennifer Lee	Seats (Total: 25)
	Th 5:30pm - 6:30pm	CCC 1100

CPSF College Park Scholars-Life Sciences Spring 2020

CPSF101 **College Park Scholars: Life Sciences First-Year Colloquium II**

Credits: 1 Grading Method: Regular, Pass-Fail

Prerequisite: CPSF100. Restriction: Students must be enrolled in the College Park Scholars Life Sciences (CPSF) program.

Further examination of issues related to the life sciences.

0101	Jimmy McClellan, Beth Parent	Seats (Total: 100)
	W 3:30pm - 5:30pm	PLS 1140

CPSG College Park Scholars-Science and Global Change Spring 2020

CPSG101 **College Park Scholars: Science & Global Change First-Year Colloquium II**

Credits: 1 Grading Method: Regular, Pass-Fail

Prerequisite: CPSG100. Restriction: Students must be enrolled in the College Park Scholars Science & Global Change (CPSG) program.

Introductory colloquium II: Continued examination of issues related to science and global change.

0101	Thomas Holtz	Seats (Total: 91)
	Tu 3:30pm - 4:50pm	CCC 1100

CPSG230 **College Park Scholars: Science & Global Change - Internship Practicum**

Credits: 1-3 Grading Method: Regular, Pass-Fail General Education: DSSP

Prerequisite: CPSG200. Restriction: Students must be enrolled in the College Park Scholars Science & Global Change (CPSG) program.

Supervised internship in an interest area related to science and global change.

0101	Thomas Holtz, John Merck	Seats (Total: 75)
	Contact instructor or department for details.	

CPSG240 **College Park Scholars: Science & Global Change - Service-Learning Practicum**

Credits: 1-3 Grading Method: Regular, Pass-Fail

Prerequisite: CPSG200. Restriction: Students must be enrolled in the College Park Scholars Science & Global Change (CPSG) program.

Supervised Service-Learning experience in an interest area related to science and global change.

0101	John Merck, Thomas Holtz	Seats (Total: 25)
	Contact instructor or department for details.	

CPSG250 **College Park Scholars: Science & Global Change - Research Practicum**

Credits: 1-3 Grading Method: Regular, Pass-Fail General Education: DSSP

Prerequisite: CPSG200. Restriction: Students must be enrolled in the College Park Scholars Science & Global Change (CPSG) program.

Supervised research experience in an interest area related to science and global change.

0101	Thomas Holtz, John Merck	Seats (Total: 25)
	Contact instructor or department for details.	

CPSN College Park Scholars-International Studies Spring 2020

CPSN101 **College Park Scholars: International Studies First-Year Colloquium II**

Credits: 1 | Grading Method: Regular, Pass-Fail | General Education: DVCC

Prerequisite: CPSN100. Restriction: Students must be enrolled in the College Park Scholars International Studies (CPSN) program. Additional information: When paired with the successful completion of CPSN 100, students will earn Diversity/Cultural Competence General Education credits.

Introductory colloquium II: Continued examination of issues related to international studies.

0101	James Glass, Annie Rappeport, Robert Campana, Seo Chung, Autumn Perkey Tu 2:00pm - 3:15pm	Seats (Total: 25) CCC 1100
0102	Annie Rappeport, James Glass, Robert Campana, Autumn Perkey, Seo Chung Tu 2:00pm - 3:15pm	Seats (Total: 25) CBD 1140
0103	James Glass, Annie Rappeport, Seo Chung, Robert Campana, Autumn Perkey Tu 2:00pm - 3:15pm	Seats (Total: 25) CCC 1115
0104	Annie Rappeport, James Glass, Robert Campana, Autumn Perkey, Seo Chung Tu 2:00pm - 3:15pm	Seats (Total: 25) CCC 1200

CPSN230 **College Park Scholars: International Studies - Internship Practicum**

Credits: 3 | Grading Method: Regular, Pass-Fail

Prerequisite: CPSN101. Restriction: Students must be enrolled in the College Park Scholars International Studies (CPSN) program.

Supervised internship project in an area related to international studies.

0101	Annie Rappeport, James Glass, Robert Campana, Seo Chung, Autumn Perkey Contact instructor or department for details.	Seats (Total: 40)

CPSN240 **College Park Scholars: International Studies - Service-Learning Practicum**

Credits: 3 | Grading Method: Regular, Pass-Fail

Prerequisite: CPSN101. Restriction: Students must be enrolled in the College Park Scholars International Studies (CPSN) program.

Supervised Service-Learning project in an area related to international studies.

0101	Annie Rappeport, James Glass, Robert Campana, Autumn Perkey, Seo Chung Contact instructor or department for details.	Seats (Total: 15)

CPSN250 **College Park Scholars: International Studies - Research Practicum**

Credits: 3 Grading Method: Regular, Pass-Fail

Prerequisite: CPSN101. Restriction: Students must be enrolled in the College Park Scholars International Studies (CPSN) program.

Supervised research in an area related to international studies.

0101	James Glass, Annie Rappeport, Robert Campana, Seo Chung, Autumn Perkey Contact instructor or department for details.	Seats (Total: 25)

CPSP College Park Scholars Program Spring 2020

CPSP249P **Practicum: Service-Learning**

Credits: 1-3 Grading Method: Regular, Pass-Fail, Audit

Supervised Service-Learning project in area related to the theme of the students' College Park Scholars program.

Restricted to College Park Students (CPPL).

0101	Kelly Brower, Susannah Washburn Contact instructor or department for details.	Seats (Total: 5)

CPSP259I **Practicum: Research**

Credits: 1-3 Grading Method: Regular, Pass-Fail, Audit

Supervised research project in interest area related to the students' College Park Scholars program.

Contact department for information to register for this course.

CPSP259J **Practicum: Research; Media, Self and Society**

Credits: 1-3 Grading Method: Regular, Pass-Fail, Audit

Supervised research project in interest area related to the students' College Park Scholars program.

Restricted to College Park Scholars-Media, Self and Society.

0101	Kelly Brower, Mary Burns	Seats (Total: 10)
	Contact instructor or department for details.	

CPSP269E **Practicum: Peer Teaching**

Credits: 2 Grading Method: Regular, Pass-Fail, Audit

Supervised peer teaching in students' College Park Scholars program.

Contact department for information to register for this course.

CPSP269G **Practicum: Peer Teaching; Science and Global Change**

Credits: 1-3 Grading Method: Regular, Pass-Fail, Audit

Supervised peer teaching in students' College Park Scholars program.

Contact department for information to register for this course.

CPSP269J **Practicum: Peer Teaching**

Credits: 1-3 Grading Method: Regular, Pass-Fail, Audit

Supervised peer teaching in students' College Park Scholars program.

Contact department for information to register for this course.

CPSP279K **Practicum: Study Abroad; London and British Empire**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Supervised international experience that satisfies students' College Park Scholars practicum requirement.

Contact department for information to register for this course.

CPSP339J **Advanced Practicum: Internship**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit General Education: DSSP

Independent study designed for students who wish to extend in greater depth and detail projects begun in sophomore year. Subject varies. Overseen by faculty director or mentor.

Contact department for information to register for this course.

CPSP339P **Advanced Practicum: Internship**

Credits: 1-3 | Grading Method: Regular, Pass-Fail, Audit | General Education: DSSP

Independent study designed for students who wish to extend in greater depth and detail projects begun in sophomore year. Subject varies. Overseen by faculty director or mentor.

Contact department for information to register for this course.

CPSP349A **Service Learning: Arts**

Credits: 2 | Grading Method: Regular, Pass-Fail, Audit | General Education: DSSP

Contact department for information to register for this course.

CPSP349D **Advanced Practicum: Service Learning; Science, Discovery, and the Universe**

Credits: 1-3 | Grading Method: Regular, Pass-Fail, Audit

Advanced supervised Service-Learning project.

Contact department for information to register for this course.

CPSP349T **Advanced Practicum: Service Learning; Science, Technology, and Society**

Credits: 1-3 | Grading Method: Regular, Pass-Fail, Audit | General Education: DSSP

Advanced supervised Service-Learning project.

Contact department for information to register for this course.

CPSP359B **Advanced Practicum: Research**

Credits: 1-3 | Grading Method: Regular, Pass-Fail, Audit | General Education: DSSP

Advanced supervised internship experience.

Contact department for information to register for this course.

CPSP359D **Advanced Practicum: Research**

Credits: 3 | Grading Method: Regular, Pass-Fail, Audit | General Education: DSSP

0101	Alan Peel	Seats (Total: 10)
	Contact instructor or department for details.	

CPSP359G **Advanced Practicum: Research**

Credits: 3 | Grading Method: Regular, Pass-Fail, Audit | General Education: DSSP

0101	John Merck, Thomas Holtz Contact instructor or department for details.	Seats (Total: 25)

CPSP359N **Advanced Practicum: Research; International Studies**

Credits: 3 | Grading Method: Regular, Pass-Fail, Audit | General Education: DSSP

Advanced supervised internship experience.

0101	James Glass, Robert Campana, Seo Chung, Autumn Perkey, Annie Rappeport Contact instructor or department for details.	Seats (Total: 35)

CPSP359S **Advanced Practicum: Research: Discovery Research**

Credits: 3 | Grading Method: Regular, Pass-Fail, Audit | General Education: DSSP

0101	David Eubanks TuTh 11:00am - 12:15pm	Seats (Total: 25) CCC 1115

CPSP369A **Advanced Practicum: Peer Teaching; Arts**

Credits: 1-3 | Grading Method: Regular, Pass-Fail

Supervised advanced practicum in peer instruction.

Contact department for information to register for this course.

CPSP369D **Advanced Practicum: Peer Teaching**

Credits: 1-3 | Grading Method: Regular, Pass-Fail, Audit

Supervised advanced practicum in peer instruction.

Contact department for information to register for this course.

CPSP369E **Advanced Practicum: Peer Teaching**

Credits: 1-3 Grading Method: Regular, Pass-Fail

Supervised advanced practicum in peer instruction.

0101	Timothy Knight, Faith Taylor, Marcella Kim	Seats (Total: 1)
	Contact instructor or department for details.	

CPSP369G **Advanced Practicum: Peer Teaching; Science and Global Change**

(Perm req)

Credits: 1-3 Grading Method: Regular, Pass-Fail

Supervised advanced practicum in peer instruction.

Contact department for information to register for this course.

CPSP369P **Advanced Practicum: Peer Teaching; Public Leadership**

Credits: 1-3 Grading Method: Regular, Pass-Fail

Supervised advanced practicum in peer instruction.

Contact department for information to register for this course.

CPSP369T **Advanced Practicum: Peer Teaching; Science, Technology, and Society**

Credits: 1-3 Grading Method: Regular, Pass-Fail

Supervised advanced practicum in peer instruction.

Contact department for information to register for this course.

CPSP379B **Advanced Practicum: Study Abroad: Dubai: Global Immersion Experience**

Credits: 3 Grading Method: Regular, Pass-Fail , D General Education: DVCC

Contact department for information to register for this course.

CPSP379D **Advanced Practicum: Study Abroad; United Arab Emirates: Global Immersion**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Advanced, supervised study-abroad experience.

Contact department for information to register for this course.

CPSP386E **Experiential Learning**

Credits: 3-6

Grading Method: Regular, Pass-Fail, Audit

Contact department for information to register for this course.

CPSP388D **Advanced Special Topics in College Park Scholars; Hawaiian Culture**

Credits: 1-3

Grading Method: Regular, Pass-Fail, Audit

Interdisciplinary topics of special interest to College Park Scholars, such as legacies of the cold war, environmental ethics, women in leadership, and other timely issues. Projects build on previous work in College Park Scholars.

0101	Mark Wellman	Seats (Total: 1)
	Contact instructor or department for details.	

CPSP388E **Advanced Special Topics in College Park Scholars; Pedagogy and Design in ETE**

Credits: 1-3

Grading Method: Regular, Pass-Fail, Audit

Interdisciplinary topics of special interest to College Park Scholars, such as legacies of the cold war, environmental ethics, women in leadership, and other timely issues. Projects build on previous work in College Park Scholars.

Contact department for information to register for this course.

CPSS College Park Scholars-Science, Technology and Society — Spring 2020

CPSS101 **College Park Scholars: Science, Technology & Society First-Year Colloquium II**

Credits: 1

Grading Method: Regular, Pass-Fail

Prerequisite: CPSS100. Restriction: Students must be enrolled in the College Park Scholars Science, Technology & Society (CPSS) program.

Continued examination of issues related to science, technology and society.

0101	Nicole Mogul, David Tomblin	Seats (Total: 90)
	M 4:00pm - 5:20pm	CCC 1100

CPSS220 **The Culturally Competent Expert**

Credits: 3

Grading Method: Regular, Pass-Fail

General Education: DVCC

Restriction: Must be in the College Park Scholars Science, Technology or Society program or have permission of the program.

How can scientists communicate their work effectively? The field of science communication ventures that the answer is not simply a matter of improving capacity (e.g., because people lack scientific information, scientists lack communication skills, or both). Rather, it calls for sustained collaboration and empathy between laypersons and experts. In this hands-on, experiential course, we use a model of cultural competency to put forth solutions to bridge the expert-lay divide. We investigate typical venues in which science is communicated (museums, YouTube videos, federal agency websites, and much much more) and study best practices for communication. Then we explore emerging venues that support sustained contact between so-called "lay citizens" and scientific or technical experts (dance/improv techniques, ethnographic methods and citizen science). Students learn to use cross-cultural perspectives as a basis to pilot and test ways of strengthening relationships and improving communication.

0101	Nicole Mogul TuTh 12:30pm - 1:45pm	Seats (Total: 20) CCC 1105

CPSS225 **College Park Scholars Capstone: Science, Technology, and Society**

Credits: 3 | Grading Method: Regular, Pass-Fail | General Education: DSHS, SCIS

Prerequisite: CPSS100. Restriction: Must be in the College Park Scholars Science, Technology & Society (CPSS) program. Formerly: CPSP227.

Exploration and understanding of ways science and technology shape and are shaped by society.

0101	David Tomblin TuTh 9:30am - 10:45am	Seats (Total: 20) CCC 1105
0301	Logan Williams TuTh 11:00am - 12:15pm	Seats (Total: 20) CCC 1100

CPSS240 **College Park Scholars: Science, Technology & Society - Service-Learning Practicum**

Credits: 3 | Grading Method: Regular, Pass-Fail | General Education: DSSP, SCIS

Restriction: Matriculation into the College Park Scholars Science, Technology & Society (CPSS) program; or permission of instructor.

Supervised Service-Learning practicum in issues related to science, technology and society.

Robotics Service-Learning in K-12 Schools.

0101	Timothy Reedy TuTh 2:00pm - 3:15pm	Seats (Total: 15) CCC 1205
0201	Timothy Reedy TuTh 3:30pm - 4:45pm	Seats (Total: 30) CCC 1111

DANC Dance Spring 2020

DANC109 **Choreography I: Improvisation**

(Perm req)

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

An introduction to the process of spontaneous movement discovery involving solo and group movement experiences.

Students must pay a $25.00 lab fee.

5501	Sara Pearson TuTh 11:00am - 12:15pm	Seats (Total: 16) PAC 1912

DANC118 **Beginning Tap**

Credits: 2 Grading Method: Regular, Pass-Fail, Audit

Introduction to tap for the beginning student.

5501	Rebecca Hill MW 3:30pm - 4:45pm	Seats (Total: 20) PAC 1908

DANC119 **Introduction to American Social Dance; Intro. to Ballroom Dance**

Credits: 2 Grading Method: Regular, Pass-Fail, Audit

Social dance forms of North America.

5501	Julie Mulvihill TuTh 3:30pm - 4:45pm	Seats (Total: 20) PAC 1610

DANC128 **Fundamentals of Ballet**

Credits: 2 Grading Method: Regular, Pass-Fail, Audit

Introduction to ballet technique and terminology for the beginning student.

Students must pay a $25.00 lab fee.

5501	Kristina Harris	Seats (Total: 25)	
	TuTh 9:30am - 10:45am	PAC 1908	Lab

DANC138B **Global Dance Forms; House Based Dance**

Credits: 2 Grading Method: Regular, Pass-Fail, Audit , D

Movement course. Traditional dances and music of selected cultures.

Students must pay a $25 lab fee.

5501	Ronya Anderson	Seats (Total: 20)
	TuTh 2:00pm - 3:15pm	PAC 1912

DANC138D **Global Dance Forms; Pilates and Conditioning**

Credits: 2 Grading Method: Regular, Pass-Fail, Audit , D

Movement course. Traditional dances and music of selected cultures.

Students must pay a $25.00 lab fee.

5501	Renee Gerardo	Seats (Total: 20)	
	TuTh 8:00am - 9:15am	PAC 1908	Lab

DANC138P **Global Dance Forms; Hip Hop**

Credits: 2 Grading Method: Regular, Pass-Fail, Audit , D

Movement course. Traditional dances and music of selected cultures.

5501	Ama Law	Seats (Total: 25)
	Tu 3:30pm - 6:00pm	PAC 1912

DANC148 **Fundamentals of Modern Dance**

Credits: 2 Grading Method: Regular, Pass-Fail, Audit

Introduction to modern dance with emphasis on the development of fundamental movement skills.

Students must pay a $25.00 lab fee.

5501	Adriane Fang MW 12:30pm - 1:45pm	Seats (Total: 30) PAC 1912	Lab
5502	Ronya Anderson TuTh 9:30am - 10:45am	Seats (Total: 30) PAC 1912	Lab
5503	Renee Gerardo TuTh 12:30pm - 1:45pm	Seats (Total: 30) PAC 1908	Lab
5504	Heidi McFall MW 3:30pm - 4:45pm	Seats (Total: 30) PAC 1912	Lab

DANC199 **Practicum in Choreography, Production and Performance I**

(Perm req)

Credits: 1-2 Grading Method: Regular, Pass-Fail, Audit

Choreography, production, and performance of student works, both on and off campus.

Contact department for information to register for this course.

DANC200 **Introduction to Dance**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit CORE: HA, D General Education: DSSP

A study of dance as a form of communication and as an art form; a survey of the theories and styles of dance, and their relationships to other art forms.

0101	Julie Mulvihill TuTh 12:30pm - 1:45pm	Seats (Total: 25) KNI 1103	
0201	Gabriel Mata-Ortega TuTh 2:00pm - 3:15pm	Seats (Total: 25) SKN 1115	
0301	Amber Daniels TuTh 11:00am - 12:15pm	Seats (Total: 25) SKN 1115	

DANC207 **Choreography II: The Creative Process**

(Perm req)

Credits: 3

Grading Method: Regular, Pass-Fail, Audit

Prerequisite: DANC109. Restriction: Permission of ARHU-Dance department.

Explorations in movement, music, words, objects, and environments through improvisation and choreographic problem solving.

Students must pay a $25.00 lab fee.

5501	Patrik Widrig	Seats (Total: 12)	
	MW 11:00am - 12:50pm	PAC 1908	Lab

DANC218 **Modern Dance I**

(Perm req)

Credits: 3

Grading Method: Regular, Pass-Fail, Audit

Development of heightened body awareness, breath support, dynamic alignment, and spatial awareness. Focus on rhythmic clarity and musicality.

Prerequisite: permission of department.

5501	Adriane Fang	Seats (Total: 15)	
	MWF 9:00am - 10:30am	PAC 1908	Lab

DANC219 **Modern Dance II**

(Perm req)

Credits: 3

Grading Method: Regular, Pass-Fail, Audit

Continuation of the elements addressed in DANC218 with an added focus on momentum, the use of counter-tension, stability/mobility, suspension, and dynamic range.

Prerequisite: DANC218 and permission of department.

5501	Adriane Fang	Seats (Total: 16)	
	MWF 9:00am - 10:30am	PAC 1908	Lab

DANC299 **Practicum in Choreography, Production and Performance II**

(Perm req)

Credits: 1-3

Grading Method: Regular, Pass-Fail, Audit

Continuation of DANC199.

Contact department for information to register for this course.

DANC318 **Modern Dance III**

(Perm req)

Credits: 3

Grading Method: Regular, Pass-Fail, Audit

Continuation of the elements addressed in DANC219 with an added focus on off-verticality, spirals, complex level changes, more complex and extended phrasing, responsiveness to accompaniment, vocalization.

Prerequisite: DANC219 an permission of department. Students must pay $25 lab fee.

5501	Patrik Widrig	Seats (Total: 10)	
	MWF 1:00pm - 2:30pm	PAC 1908	Lab

DANC319 **Modern Dance IV**

(Perm req)

Credits: 3

Grading Method: Regular, Pass-Fail, Audit

Continuation of the elements addressed in DANC318 with an added focus on movement subtlety and complexity, and stylistic demands.

Prerequisite: DANC318 and permission of department. Students must pay $25 lab fee.

5501	Patrik Widrig	Seats (Total: 10)	
	MWF 1:00pm - 2:30pm	PAC 1908	Lab

DANC328 **Ballet III**

(Perm req)

Credits: 2

Grading Method: Regular, Pass-Fail, Audit

Execution of the vocabulary of ballet movement with technical accuracy.

Students must pay a $25.00 lab fee.

5501	Kendra Portier	Seats (Total: 10)	
	TuTh 11:00am - 12:15pm	PAC 1908	Lab

DANC329 **Ballet IV**

(Perm req)

Credits: 2

Grading Method: Regular, Pass-Fail, Audit

Continuation of DANC328.

Students must pay a $25.00 lab fee.

5501	Kendra Portier	Seats (Total: 10)	
	TuTh 11:00am - 12:15pm	PAC 1908	Lab

DANC338C **Global Movement Practices; Chinese Dance**

Credits: 2 Grading Method: Regular, Pass-Fail, Audit

Movement course. Intermediate level of dances and music of selected world cultures.

5501	Xinran Qi	Seats (Total: 30)
	TuTh 9:30am - 10:45am	PKT 2102

DANC383 **Dance History & Theory**

(Perm req)

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Restriction: Permission of ARHU-Dance department. Credit only granted for: DANC283 or DANC383. Formerly: DANC283.

With a primary focus on Western concert dance from the 20th and 21st centuries, this course proposes an understanding of dance as it is situated in historical and cultural contexts. Rather than proposing a canon of "masterworks", this course interrogates choreography and other dance practices from multiple perspectives such as feminist theories, race, gender, and sexuality studies.

0101	Maura Keefe	Seats (Total: 15)
	TuTh 9:30am - 10:45am	PAC 1815

DANC398 **Directed Studies in Dance**

(Perm req)

Credits: 1-6 Grading Method: Regular, Pass-Fail, Audit

Contact department for information to register for this course.

DANC399 **Practicum in Choreography, Production and Performance III**

(Perm req)

Credits: 1-3 Grading Method: Regular, Pass-Fail, Audit

Continuation of DANC299.

0601	Kendra Portier	Seats (Total: 25)
	Contact instructor or department for details.	

DANC420 **Partnering**

(Perm req)

Credits: 2

Grading Method: Regular, Pass-Fail, Audit

Restriction: Permission of ARHU-Dance department.

Elements of contemporary partnering including weight sharing, counter balancing, momentum/leverage, lifting and moving responsively.

5501	Alvin Mayes	Seats (Total: 12)	
	TuTh 2:00pm - 3:15pm	PAC 1908	

DANC448 **Modern Dance V**

(Perm req)

Credits: 3

Grading Method: Regular, Pass-Fail, Audit

Complex phrases of modern dance movement with emphasis on articulation and expression.

Prerequisite: DANC319 and audition. Students must pay a $25.00 lab fee.

5501	Kendra Portier	Seats (Total: 10)	
	MWF 9:00am - 10:30am	PAC 1912	Lab

DANC449 **Modern Dance VI**

(Perm req)

Credits: 3

Grading Method: Regular, Pass-Fail, Audit

Continuation of DANC448.

Prerequisite: DANC448. Students must pay a $25.00 lab fee.

5501	Kendra Portier	Seats (Total: 6)	
	MWF 9:00am - 10:30am	PAC 1912	Lab

DANC466 **Laban Movement Analysis**

(Perm req)

Credits: 3

Grading Method: Regular, Pass-Fail, Audit

Introduction to Rudolf Laban's system of qualitative movement analysis in relation to understanding personal movement style. Application to dance performance, teaching, composition and research.

0101	Crystal Davis	Seats (Total: 12)	
	TuTh 11:00am - 12:15pm	PAC 1611	

DANC468 **Dance Repertory**

(Perm req)

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Form, content, music, design and performance of modern dance works.

Students must pay a $25.00 lab fee.

5501	Alvin Mayes	Seats (Total: 12)
	TuTh 3:30pm - 4:45pm	PAC 1908

DANC485 **Seminar in Dance**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit CORE: CS

Prerequisite: DANC483. Restriction: Must be in Dance program; and senior standing.

Individual research leading to a presentation with written documentation of the process, serving as a culmination of undergraduate study for dance majors.

0101	Melissa Blanco Borelli	Seats (Total: 15)
	MW 2:00pm - 3:15pm	PAC 1809

DANC489O **Special Topics in Dance; Contemporary Modern Technique**

Credits: 2 Grading Method: Regular, Pass-Fail, Audit

Theoretical, choreographic, pedagogic, or performance study.

5501	Tristan Koepke	Seats (Total: 15)
	TuTh 12:30pm - 1:45pm	PAC 1912

DANC499 **Practicum in Choreography, Production and Performance IV**

(Perm req)

Credits: 1-6 Grading Method: Regular, Pass-Fail, Audit

Advanced workshop in dance presentation, including performing, production and planned field experiences.

0601	Kendra Portier	Seats (Total: 25)
	Contact instructor or department for details.	

DANC611 **Dance Technology and Media**

(Perm req)

Credits: 3

Grading Method: Regular, Audit, Sat-Fail

Restriction: Permission of ARHU-School of Theatre, Dance & Performance Studies department.

Project-based development of media and technological support for dance performance, archiving, and portfolio design, development and implementation.

Students must pay a $25.00 lab fee.

5501	Paul Jackson	Seats (Total: 5)
	MF 1:00pm - 2:15pm	PAC 1610

DANC647 **Dance and Movement Practice**

(Perm req)

Credits: 2

Grading Method: Regular, Sat-Fail

Restriction: Permission of ARHU-School of Theatre, Dance & Performance Studies department.

Experiential studio work that generates common movement vocabulary and innovations of same in a shared, faculty-led exploration of movement for the purpose of generating vocabulary for technique, choreography, and pedagogy.

Contact department for information to register for this course.

DANC678 **Individual Movement Practice**

Credits: 2

Grading Method: Regular, Sat-Fail

Students in consultation with the adviser, propose a specific movement practice and can select the practice from the range of technique offerings in the program. Additional work in documenting and providing evidence of growth towards individual outcomes is required.

Contact department for information to register for this course.

DANC679 **Graduate Dance Performance**

Credits: 1-3

Grading Method: Regular, Audit, Sat-Fail

An advanced performance course focusing on the restagings from noted scores of the choreographic works of significant artists in the field.

0101	Patrik Widrig	Seats (Total: 2)
	Contact instructor or department for details.	

0201	Sara Pearson Contact instructor or department for details.	Seats (Total: 2)	
0301	Maura Keefe Contact instructor or department for details.	Seats (Total: 2)	
0401	Alvin Mayes Contact instructor or department for details.	Seats (Total: 2)	
0501	Paul Jackson Contact instructor or department for details.	Seats (Total: 2)	
0601	Kendra Portier Contact instructor or department for details.	Seats (Total: 2)	
0701	Crystal Davis Contact instructor or department for details.	Seats (Total: 2)	
0801	Instructor: TBA Contact instructor or department for details.	Seats (Total: 2)	
1001	Adriane Fang Contact instructor or department for details.	Seats (Total: 2)	

DANC689B **Special Topics in Dance**

Credits: 1 Grading Method: Regular, Audit, Sat-Fail

Special Topics in dance theory, research or creative projects.

5501	Kendra Portier TuTh 11:00am - 12:15pm	Seats (Total: 4) PAC 1908	Lab

DANC689D **Special Topics in Dance; Dance Pedagogy-Dance History**

Credits: 1 Grading Method: Regular, Audit, Sat-Fail

Special Topics in dance theory, research or creative projects.

0101	Maura Keefe TuTh 9:30am - 10:45am	Seats (Total: 4) PAC 1815

DANC689F **Special Topics in Dance; Professional Development in Dance and Theatre**

Credits: 1 Grading Method: Regular, Audit, Sat-Fail

Special Topics in dance theory, research or creative projects.

Cross-listed with thet669K. Credit only granted for THET669K or DANC689F.

0101	Caitlin Marshall	Seats (Total: 15)
	F 2:00pm - 4:00pm	PAC 1815

DANC689M **Special Topics in Dance; Advanced Modern Technique I**

Credits: 1 Grading Method: Regular, Audit, Sat-Fail

Special Topics in dance theory, research or creative projects.

5501	Kendra Portier	Seats (Total: 8)
	MWF 9:00am - 10:30am	PAC 1912

DANC689T **Special Topics in Dance; Advanced Modern Technique II**

(Perm req)

Credits: 1 Grading Method: Regular, Audit, Sat-Fail

Special Topics in dance theory, research or creative projects.

Students must pay a $25 lab fee.

5501	Kendra Portier	Seats (Total: 5)
	MWF 9:00am - 10:30am	PAC 1912

DANC689W **Special Topics in Dance; MFA Thesis Writing Lab**

(Perm req)

Credits: 1 Grading Method: Regular, Audit, Sat-Fail

Special Topics in dance theory, research or creative projects.

0101	Maura Keefe	Seats (Total: 1)
	Contact instructor or department for details.	

DANC698 **Independent Study in Dance**

(Perm req)

Credits: 1-3

Grading Method: Regular, Audit, Sat-Fail

Directed independent study in theoretical topics.

0101	Patrik Widrig Contact instructor or department for details.	Seats (Total: 5)
0201	Sara Pearson Contact instructor or department for details.	Seats (Total: 3)
0301	Maura Keefe Contact instructor or department for details.	Seats (Total: 3)
0401	Alvin Mayes Contact instructor or department for details.	Seats (Total: 3)
0501	Paul Jackson Contact instructor or department for details.	Seats (Total: 3)
0601	Kendra Portier Contact instructor or department for details.	Seats (Total: 3)
0701	Crystal Davis Contact instructor or department for details.	Seats (Total: 5)
1001	Adriane Fang Contact instructor or department for details.	Seats (Total: 3)

DANC708 **Choreography and Collaboration; Collaborative Work**

Credits: 3

Grading Method: Regular, Audit, Sat-Fail

Collaborative work across disciplines and genres.

Students must pay a $25.00 lab fee.

5501	Sara Pearson MF 11:00am - 12:50pm	Seats (Total: 5) PAC 1610

DANC777 **Internship in Dance**

(Perm req)

Credits: 6

Grading Method: Sat-Fail

Restriction: Must be admitted to MFA in Dance; or permission of ARHU-School of Theatre, Dance & Performance Studies department.

Internship in dance advocacy, administration, education, community building, choreography, or performance with an agency off campus and with a national or international profile.

0701	Crystal Davis	Seats (Total: 5)
	Contact instructor or department for details.	

DANC784 **Dance in a Global Context**

(Perm req)

Credits: 3 Grading Method: Regular, Audit, Sat-Fail

Restriction: Must be admitted to MFA in Dance; or permission of ARHU-School of Theatre, Dance & Performance Studies department.

Topics that illuminate dance in global context and provides an overview of methods, challenges and perspectives to the study of dance cross-culturally will be considered. Simultaneously, surveys select dance practices spanning many geographical areas, and offers insight into the diverse social, cultural, religious, and political environments from which dance extends.

0101	Maura Keefe	Seats (Total: 12)
	W 1:15pm - 3:45pm	PAC 1924

DANC788 **Master's Tutorial for Choreography**

Credits: 1-3 Grading Method: Regular, Audit, Sat-Fail

Supervised production and presentation of a significant choreographic project.

0101	Patrik Widrig	Seats (Total: 5)
	Contact instructor or department for details.	
0201	Sara Pearson	Seats (Total: 5)
	Contact instructor or department for details.	
0301	Maura Keefe	Seats (Total: 5)
	Contact instructor or department for details.	
0401	Alvin Mayes	Seats (Total: 5)
	Contact instructor or department for details.	
0501	Paul Jackson	Seats (Total: 5)
	Contact instructor or department for details.	

0601	Kendra Portier Contact instructor or department for details.	Seats (Total: 5)
0701	Instructor: TBA Contact instructor or department for details.	Seats (Total: 5)
1001	Adriane Fang Contact instructor or department for details.	Seats (Total: 5)

DANC789 **Directed Study in Dance Theory; Directed Study in Dance Theory**

Credits: 2-6 Grading Method: Regular, Audit, Sat-Fail

Advanced directed study in dance history, theory or criticism culminating in a paper for presentation or publication.

0101	Patrik Widrig Contact instructor or department for details.	Seats (Total: 6)
0201	Sara Pearson Contact instructor or department for details.	Seats (Total: 6)
0301	Maura Keefe Contact instructor or department for details.	Seats (Total: 6)
0401	Alvin Mayes Contact instructor or department for details.	Seats (Total: 6)
0501	Paul Jackson Contact instructor or department for details.	Seats (Total: 6)
0601	Kendra Portier Contact instructor or department for details.	Seats (Total: 6)
0701	Crystal Davis Contact instructor or department for details.	Seats (Total: 6)
0801	Instructor: TBA Contact instructor or department for details.	Seats (Total: 6)
0901	Instructor: TBA Contact instructor or department for details.	Seats (Total: 6)

1001	Adriane Fang Contact instructor or department for details.	Seats (Total: 6)
1601	Instructor: TBA Contact instructor or department for details.	Seats (Total: 10)

DANC799 **Master's Thesis Project**

Credits: 1-6 Grading Method: Sat-Fail

Contact department for information to register for this course.

DATA Data Science and Analytics Spring 2020

DATA605 **Big Data Systems**

Credits: 3 Grading Method: Regular, Sat-Fail

Restriction: Must be in the Data Science Post-Baccalaureate Certificate of Professional Studies or Master of Professional Studies in Data Science and Analytics program. Credit only granted for: DATA605 or CMSC642. Formerly: CMSC642.

An overview of data management systems for performing data science on large volumes of data, including relational databases, and NoSQL systems. The topics covered include: different types of data management systems, their pros and cons, how and when to use those systems, and best practices for data modeling.

PCS1	Prem Saggar **Meets February 27, 2020 - May 20, 2020** W 6:00pm - 9:30pm *Must be in Data Science & Analytics or Data Science Certificate Program. For permission to enroll, contact oes@umd.edu.*	Seats (Total: 20) IRB 2207

DATA606 **Algorithms for Data Science**

Credits: 3 Grading Method: Regular, Sat-Fail

Restriction: Must be in the Data Science Post-Baccalaureate Certificate of Professional Studies or Master of Professional Studies in Data Science and Analytics program. Credit only granted for: DATA606 or CMSC644. Formerly: CMSC644.

Provides an in-depth understanding of some of the key data structures and algorithms essential for advanced data science. Topics include random sampling, graph algorithms, network science, data streams, and optimization.

PCS1	Hector Corrada Bravo	Seats (Total: 20)
	Meets February 27, 2020 - May 20, 2020	
	Tu 6:00pm - 9:30pm	CSI 3118
	Must be in Data Science & Analytics or Data Science Certificate Program. For permission to enroll, contact oes@umd.edu.	

EALL East Asian Languages and Literatures Spring 2020

EALL300 **The Languages of East Asia**

Credits: 3 | Grading Method: Regular, Pass-Fail | , D | General Education: DVUP

A survey of Chinese, Japanese, and Korean, and the languages of other East Asian nationalities. Provides a basic understanding of the structures of these languages. Topics covered include the characterizing features; the relationships of the languages to each other; the geographical, social, and historical settings. No knowledge of Asian languages is required. Taught in English.

This course satisfies one general elective requirement for the JAPN major.

0101	Samuel Ramsey	Seats (Total: 30)
	MW 3:30pm - 4:45pm	JMZ 2206

ECON Economics Spring 2020

ECON181 **Putting a Price on the Environment: An Economist's Perspective on Sustainability**

Credits: 3 | Grading Method: Regular, Pass-Fail | General Education: DSHS, SCIS

How does society balance the benefits of environmental protection and preservation against the costs? Though some might say that the environment is priceless, economists recognize that every action involves trade-offs. This course investigates sustainability through comparing costs and benefits. From this perspective, other questions arise: How can we design policies that incentivize sustainable choices? Why might usual market functioning fail to achieve sustainability? Do we need to put a price on the environment in order to protect it? How do we measure an economy's "success"? This course explores the answers to these and other related questions from an economist's perspective.

0101	Erin Moody	Seats (Total: 30)	
	MW 11:00am - 11:50am	ESJ 1224	
	F 9:00am - 9:50am	TYD 1114	Discussion

0102	Erin Moody MW 11:00am - 11:50am F 10:00am - 10:50am	Seats (Total: 30) ESJ 1224 TYD 1114	Discussion
0103	Erin Moody MW 11:00am - 11:50am F 11:00am - 11:50am	Seats (Total: 30) ESJ 1224 TYD 2102	Discussion
0104	Erin Moody MW 11:00am - 11:50am F 12:00pm - 12:50pm	Seats (Total: 30) ESJ 1224 TYD 2102	Discussion

ECON185 **Energy: Crisis or Breakthrough?**

Credits: 3 | Grading Method: Regular, Pass-Fail | General Education: DSHS, SCIS

Will we face an energy crisis in the near future, or will technological breakthroughs solve problems? Will we destroy the environment by careless use of polluting energy, or we will find new and clean sources of energy that resolves the environmental issue once and for all? Will politicians and governments succeed in agreeing on a coherent strategy to deal with global issues related to energy, or do we expect individual countries to move in different directions and exacerbate the problems? Students will explore the demand and supply sides of the energy market and their relationships with government policies and environmental concerns. Students will also analyze empirical evidence to better understand the factors affecting energy production and consumption in the past and possible directions in the future. By examining past situations when technological change mitigated problems in energy markets, we can make informed predictions about what could happen next.

0101	Hossein Abbasi TuTh 9:30am - 10:45am	Seats (Total: 120) ESJ 2204

ECON200 **Principles of Microeconomics**

Credits: 3 | Grading Method: Regular, Pass-Fail, Audit | CORE: SB | General Education: DSHS

Prerequisite: MATH107 or MATH110; or must have math eligibility of MATH113 or higher. Credit only granted for: ECON200, AREC240, or AREC250. Additional information: It is recommended that students complete ECON200 before taking ECON201.

Introduces economic models used to analyze economic behavior by individuals and firms and consequent market outcomes. Applies conceptual analysis to several policy issues and surveys a variety of specific topics within the broad scope of microeconomics.

0101	Cindy Clement TuTh 11:00am - 12:15pm	Seats (Total: 375) TYD 0130
0201	Cindy Clement TuTh 12:30pm - 1:45pm	Seats (Total: 375) TYD 0130

ECON201 **Principles of Macroeconomics**

Credits: 3 | Grading Method: Regular, Pass-Fail, Audit | CORE: SB | General Education: DSHS

Prerequisite: MATH107 or MATH110; or must have math eligibility of MATH113 or higher. Recommended: ECON200. Credit only granted for: ECON201 or ECON205.

An introduction to how market economies behave at the aggregate level. The determination of national income/output and the problems of unemployment inflation, will be examined, along with monetary and fiscal policy.

0101	John Neri TuTh 2:00pm - 3:15pm	Seats (Total: 375) TYD 0130
0201	Naveen Sarna TuTh 3:30pm - 4:45pm	Seats (Total: 375) TYD 0130

ECON230 **Applied Economic Statistics**

Credits: 3 | Grading Method: Regular, Pass-Fail, Audit

Prerequisite: Must have math eligibility of MATH113 or higher; or 1 course with a minimum grade of C- from (MATH107, MATH110). And minimum grade of C- in ECON200 and ECON201. Recommended: Students should already have basic familiarity with Microsoft Excel or similar spreadsheet software. Restriction: Must be in Economics Bachelor of Arts program. Credit only granted for: BIOM301, BMGT230, CCJS200, ECON230, ECON321, EDMS451, GEOG306, GEOL351, GVPT422, INST314, JOUR405, PSYC200 or SOCY201. (These courses do not necessarily meet the same major requirements-check with your advisor to see which of these courses will count for your major).

Introductory course to develop understanding of statistical concepts used in applied economics. Students will acquire skills needed to calculate and interpret statistical concepts, including descriptive statistics, probability, discrete and continuous distributions, sampling, point and interval estimations, hypothesis testing, basic analysis of variance, and simple linear regression models. Students will apply these concepts to data using both handheld calculators and spreadsheets(Excel), and students will be introduced to an econometric software package such as SPSS or SAS or R.

0101	Pierre De Leo MW 2:00pm - 3:15pm	Seats (Total: 40) TYD 1114

ECON305 **Intermediate Macroeconomic Theory and Policy**

Credits: 3 Grading Method: Regular, Pass-Fail

Prerequisite: Minimum grade of C- in ECON201 and ECON200. And 1 course with a minimum grade of C- from (MATH120, MATH130, MATH136, MATH140); or must have completed MATH220 with a minimum grade of C-. Credit only granted for: ECON305 or ECON325.

Analysis of the determination of national income, employment, and price levels. Discussion of consumption, investment, inflation, and government fiscal and monetary policy.

0101	John Neri TuTh 11:00am - 12:15pm	Seats (Total: 200) VMH 1524
0201	Martina Copelman TuTh 9:30am - 10:45am	Seats (Total: 90) TWS 0310
0301	Martina Copelman TuTh 12:30pm - 1:45pm	Seats (Total: 90) TWS 0310

ECON306 **Intermediate Microeconomic Theory & Policy**

Credits: 3 Grading Method: Regular, Pass-Fail

Prerequisite: 1 course with a minimum grade of C- from (ECON200, AREC250); and minimum grade of C- in ECON201. And 1 course with a minimum grade of C- from (MATH120, MATH130, MATH136, MATH140); or must have completed MATH220 with a minimum grade of C-. Credit only granted for: ECON306, ECON326, AREC489M, or AREC326.

Analysis of the theories of consumer behavior, producer behavior, different market structures, and various sources of inefficient outcomes. Analysis of microeconomic policies designed to improve market outcomes.

0101	Aaron Finkle MWF 12:00pm - 12:50pm	Seats (Total: 150) ESJ 2204
0201	Aaron Finkle MWF 1:00pm - 1:50pm	Seats (Total: 150) ESJ 2204

ECON310 **European Economic History**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Prerequisite: ECON201 and ECON200.

The evolution of the capitalist system from its medieval origins to the present. Emphasis on dynamic forces of cumulative change in capitalism, including capital accumulation, technology, expansion of markets, the corporate form of private property in the means of production, and the relation of capitalism to war and revolution.

Contact department for information to register for this course.

ECON311 **American Economic History Before the Civil War**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Prerequisite: Minimum grade of C- in ECON200 and ECON201. Restriction: Must be in Economics Bachelor of Arts program.

Economic concepts are used to analyze various aspects of the founding and early history of the U.S., including the British settlement of the North American colonies, the economics of the American Revolutionary war, the writing of the Constitution, the development of financial markets, policies on public lands and the spread of western agriculture, slavery, banking, and early industrialization.

0101	John Wallis	Seats (Total: 180)
	TuTh 11:00am - 12:15pm	LEF 2205

ECON312 **American Economics After the Civil War**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Prerequisite: Minimum grade of C- in ECON200 and ECON201. Restriction: Must be in Economics Bachelor of Arts program.

Topics include: the economics of the Civil War, the performance of southern agriculture in the late 19th century, the rise of large corporations, industrialization, the development of financial markets, the creation of the Federal Reserve Board, the economics of the Great Depression and the New Deal, the economic impact of World War II, and the rise of the modern service economy in the late 20th century.

0101	Alka Gandhi	Seats (Total: 40)
	MWF 10:00am - 10:50am	TYD 1118

ECON314 **Economic History, Development and Policy**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Prerequisite: ECON200 and ECON201.

Study abroad in the economic history, institutional development, and recent economic policy problems of selected areas.

Contact department for information to register for this course.

ECON315 **Economic Development of Underdeveloped Areas**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Prerequisite: Minimum grade of C- in ECON200 and ECON201. Credit only granted for: ECON315 or ECON416.

Analysis of the economic and social characteristics of underdeveloped areas. Recent theories of economic development, obstacles to development, policies and planning for development.

0101	Stefania Scandizzo MWF 10:00am - 10:50am	Seats (Total: 60) TWS 1310
0201	Shanjukta Nath MWF 10:00am - 10:50am	Seats (Total: 40) SQH 1117

ECON317 **Global Economic Policies**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Prerequisite: Minimum grade of C- in ECON200 and ECON201. Restriction: Must be in Economics Bachelor of Arts program.

Analysis of policy options and debates on fostering economic growth and development in a global economy where national boundaries are no longer relevant. Topics covered will include real loanable funds markets in both local and international contexts during normal conditions and during financial crises, the design of trade and industrial policies, and the role of the World Bank, IMF, WTO, and other international agencies as well as regional and bilateral trade agreements. Emerging economies will be emphasized.

0101	Naveen Sarna TuTh 2:00pm - 3:15pm	Seats (Total: 40) TYD 0111
0201	Naveen Sarna TuTh 5:00pm - 6:15pm	Seats (Total: 40) TYD 0111

ECON321 **Economic Statistics**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Prerequisite: Minimum grade of C- in ECON201 and ECON200; and minimum grade of C- in MATH141. Recommended: STAT100. Restriction: Must be in Economics Bachelor of Science program. Credit only granted for: BIOM301, BMGT230, CCJS200, ECON230, ECON321, EDMS451, GEOG306, GEOL351, GVPT422, INST314, JOUR405, PSYC200 or SOCY201. (These courses do not necessarily meet the same major requirements-check with your advisor to see which of these courses will count for your major).

Introduction to the use of statistics in economics. Topics include: Probability, random variables and their distributions, sampling theory, estimation, hypothesis testing, analysis of variance, regression analysis and correlation.

0101	Jintae Kim MW 12:30pm - 1:45pm	Seats (Total: 40) TYD 2111	

ECON325 **Intermediate Macroeconomic Analysis**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Prerequisite: Minimum grade of C- in ECON200, ECON201, and MATH141. Restriction: Must be in Economics Bachelor of Science program. Credit only granted for: ECON305 or ECON325.

Analysis of macroeconomic behavior and policy with emphasis on theoretical rigor. Topics include the determinants of economic growth, unemployment, inflation, and international economic flows.

0101	L Stevens MW 10:00am - 10:50am F 10:00am - 10:50am	Seats (Total: 30) JMZ 0220 TYD 2111	 Discussion
0102	L Stevens MW 10:00am - 10:50am F 11:00am - 11:50am	Seats (Total: 30) JMZ 0220 TYD 2111	 Discussion
0103	L Stevens MW 10:00am - 10:50am F 12:00pm - 12:50pm	Seats (Total: 30) JMZ 0220 TYD 2111	 Discussion

ECON326 **Intermediate Microeconomic Analysis**

Credits: 3

Grading Method: Regular, Pass-Fail, Audit

Prerequisite: Minimum grade of C- in ECON200, ECON201, and MATH141. Restriction: Must be in Economics Bachelor of Science program. Credit only granted for: ECON306, ECON326, AREC326, or AREC489M.

Analysis of economic decision-making by individual buyers and sellers, and resulting market outcomes, with emphasis on theoretical rigor. The efficient properties of perfect competition are examined, followed by consideration of market power, externalities, and asymmetric information.

0101	Nicholas Montgomery MW 2:00pm - 2:50pm F 9:00am - 9:50am	Seats (Total: 30) TWS 0320 TYD 1132	Discussion
0102	Nicholas Montgomery MW 2:00pm - 2:50pm F 10:00am - 10:50am	Seats (Total: 30) TWS 0320 TYD 1132	Discussion
0103	Nicholas Montgomery MW 2:00pm - 2:50pm F 11:00am - 11:50am	Seats (Total: 30) TWS 0320 TYD 1132	Discussion

ECON330 **Money and Banking**

Credits: 3

Grading Method: Regular, Pass-Fail, Audit

Prerequisite: Minimum grade of C- in ECON200 and ECON201.

The structure of financial institutions and their role in the provision of money and near money. Analysis of the Federal Reserve System, the techniques of central banks, and the control of supply of financial assets in stabilization policy. Relationship of money and credit to economic activity and the price level.

0101	John Neri TuTh 9:30am - 10:45am	Seats (Total: 200) TYD 0130

ECON340 **International Economics**

Credits: 3

Grading Method: Regular, Pass-Fail, Audit

Prerequisite: Minimum grade of C- in ECON200 and ECON201. Credit only granted for: ECON340 or ECON441.

Introduces economic models of international trade and finance. Analyzes policies designed to promote and restrict international trade and to manage exchange rates and impact international capital flows.

Contact department for information to register for this course.

ECON358E **Special Topics in Study Abroad III; Environmental Economics**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Special topics course taken as part of an approved study abroad program.

Contact department for information to register for this course.

ECON358T **Special Topics in Study Abroad III; Behavior and Incentives in Economics: The Case of Soccer**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Special topics course taken as part of an approved study abroad program.

Contact department for information to register for this course.

ECON386 **Experiential Learning**

(Perm req)

Credits: 3 Grading Method: Sat-Fail

Prerequisite: ECON201 and ECON200. Restriction: Permission of BSOS-Economics department; and must be in a major within the BSOS-Economics department; and minimum cumulative GPA of 2.5; and junior standing or higher.

See Department Advising Office for course eligibility, course requirements, and application information.

Contact department for information to register for this course.

ECON387 **Career Preparation for Economics Majors**

Credits: 2 Grading Method: Regular, Pass-Fail

Prerequisite: 1 course with a minimum grade of C- from (ECON305, ECON325); and 1 course with a minimum grade of C- from (ECON306, ECON326). Restriction: Must be in one of the following programs (Economics Bachelor of Arts; Economics Bachelor of Science) ; and must have earned a minimum of 60 credits. Additional information: This course is intended for juniors or first semester seniors who are beginning their job search. Students who have already secured an employment opportunity for after graduation should not register.

Increase student knowledge of career paths, job search tools, and strategies for successfully obtaining a job with a BA or BS in economics. Students will engage in a range of different activities which build their understanding of job opportunities in economics and hone their abilities to find positions they want. Students will reflect on specific skills employers seek from economics graduates and incorporate that knowledge in their own individual job search and career plan.

0101	Stefania Scandizzo **Meets January 27, 2020 - March 13, 2020** F 1:00pm - 2:50pm Class time/details on ELMs	Seats (Total: 20) TYD 2111 ONLINE	 Discussion
0201	Stefania Scandizzo **Meets March 23, 2020 - May 12, 2020** F 1:00pm - 2:50pm Class time/details on ELMs	Seats (Total: 20) TYD 2111 ONLINE	 Discussion

ECON397 **Honors Thesis**

(Perm req)

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Prerequisite: ECON396. Restriction: Must be a candidate for honors in economics.

General supervision will be provided through assembled meetings with the professor in charge of the course.

0101	Nuno Limao TuTh 9:30am - 10:45am	Seats (Total: 15) TYD 1108

ECON398E **Topics in Economics; Environmental Economics**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

This course is designed to meet the changing interests of students and staff. Topics vary in response to those interests. Students are advised to seek information about the coverage and prerequisites during the registration period.

Credit granted for only one of the following: ECON381,ECON398E, or ECON481.

Contact department for information to register for this course.

ECON398H **Topics in Economics; UK Economy & Financial Systems**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

This course is designed to meet the changing interests of students and staff. Topics vary in response to those interests. Students are advised to seek information about the coverage and prerequisites during the registration period.

Contact department for information to register for this course.

ECON398K **Topics in Economics; Competitive Market Structures**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

This course is designed to meet the changing interests of students and staff. Topics vary in response to those interests. Students are advised to seek information about the coverage and prerequisites during the registration period.

Prerequisite: ECON200.

Contact department for information to register for this course.

ECON398L **Topics in Economics; The British Economy and Financial System**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

This course is designed to meet the changing interests of students and staff. Topics vary in response to those interests. Students are advised to seek information about the coverage and prerequisites during the registration period.

Contact department for information to register for this course.

ECON398M **Topics in Economics; Economics of Employment**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

This course is designed to meet the changing interests of students and staff. Topics vary in response to those interests. Students are advised to seek information about the coverage and prerequisites during the registration period.

Prerequisites: ECON200 and ECON201.

Contact department for information to register for this course.

ECON398Z **Topics in Economics; Business Economics**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

This course is designed to meet the changing interests of students and staff. Topics vary in response to those interests. Students are advised to seek information about the coverage and prerequisites during the registration period.

Contact department for information to register for this course.

ECON399 **Independent Study in Economics**

(Perm req)

Credits: 1-3

Grading Method: Regular, Pass-Fail

Integrated readings and independent study under direction and supervision of a faculty member. Contact department for additional information.

Permission of instructor must be arranged in advance. Open only to students who have previously earned 6 or more credits in upper division economics courses.

Contact department for information to register for this course.

ECON399M **Independent Study in Economics; Economy and Society**

Credits: 1-3

Grading Method: Regular, Pass-Fail

Integrated readings and independent study under direction and supervision of a faculty member. Contact department for additional information.

Contact department for information to register for this course.

ECON401 **Current Issues in American Economic Policy**

Credits: 3

Grading Method: Regular, Pass-Fail, Audit

Prerequisite: 1 course with a minimum grade of C- from (ECON305, ECON325); and 1 course with a minimum grade of C- from (ECON306, ECON326); and 1 course with a minimum grade of C- from (ECON424, ECON422). Restriction: Must be in Economics Bachelor of Arts program.

Analysis of current economic problems and public policies. Topics could include poverty, income inequality, social insurance, education, environmental sustainability, immigration, and innovation. Other issues may be substituted depending on current events.

0201	Erin Moody	Seats (Total: 27)
	MW 2:00pm - 3:15pm	TWS 1320

ECON402 **Macroeconomic Models and Forecasting**

Credits: 3

Grading Method: Regular, Pass-Fail, Audit

Prerequisite: 1 course with a minimum grade of C- from (ECON305, ECON325); and 1 course with a minimum grade of C- from (ECON230, BMGT230, ECON321). Restriction: Must be in Economics Bachelor of Arts program.

Analysis of the fluctuations in economic activity and the formulation and use of forecasting models of the economy. Illustrations of computer macro models and forecasting problems.

0101	Gonzalo Garcia	Seats (Total: 35)
	TuTh 9:30am - 10:45am	TYD 2111

ECON406 **Advanced Microeconomics**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Prerequisite: Minimum grade of C- in ECON326; and 1 course with a minimum grade of C- from (ECON321, STAT400). Restriction: Must be in Economics Bachelor of Science program.

Expands on the assumptions of rational decision-making used in intermediate microeconomics and develops more complicated, more realistic models which address uncertainty, intertemporal choices, strategic interactions, social preferences and considerations of what is fair.

0101	Yusuf Masatlioglu	Seats (Total: 60)
	TuTh 11:00am - 12:15pm	TYD 1102

ECON407 **Advanced Macroeconomics**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Prerequisite: Minimum grade of C- in ECON325; and 1 course with a minimum grade of C- from (ECON321, STAT400). Restriction: Must be in Economics Bachelor of Science program.

An in-depth analysis of current issues in macroeconomic theory and policy. Topics covered include: 1. alternative perspectives on macroeconomics including monetarism, new classical equilibrium models, rational expectations, and real business cycle models; 2. long term growth, the slowdown in productivity growth, and concerns about U.S. competitiveness; 3. the effectiveness of macroeconomic policy in an open economy; 4. the effects of finance on the real sector.

0101	Martina Copelman	Seats (Total: 40)
	TuTh 2:00pm - 3:15pm	TYD 2106

ECON414 **Game Theory**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Prerequisite: 1 course with a minimum grade of C- from (ECON306, ECON326); and 1 course with a minimum grade of C- from (ECON230, BMGT230, ECON321, STAT400). Restriction: Must be in one of the following programs (Economics Bachelor of Arts; Economics Bachelor of Science). Credit only granted for: CMSC474, ECON414, GVPT399A or GVPT390.

Studies the competitive and cooperative behavior that results when several parties find that their individual outcomes are jointly determined. Students will learn how to use game theory to analyze situations of potential conflict. Applications are drawn from economics, business, and political science.

0101	Nebahat Erturk TuTh 11:00am - 12:15pm	Seats (Total: 40) TYD 1132
0201	Erika Domotor MW 3:30pm - 4:45pm	Seats (Total: 40) TYD 2111
0301	Ece Yegane MW 5:00pm - 6:15pm	Seats (Total: 40) TYD 2102

ECON416 **Analysis of Economic Development**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Prerequisite: Minimum grade of C- in ECON325, ECON326, and ECON422. Restriction: Must be in Economics Bachelor of Science program. Credit only granted for: ECON315 or ECON416.

Analysis of the determinants and influences on economic development. Emphasis on both theoretical models and econometric methods of explaining why some countries are poor, along with examination of policies to promote development.

0101	Sebastian Galiani MW 2:00pm - 3:15pm	Seats (Total: 40) TYD 0111

ECON417 **Estimating Policy and Program Impact**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Prerequisite: 1 course with a minimum grade of C- from (ECON306, ECON326) and 1 course with a minimum grade of C- from (ECON424, ECON422). Restriction: Must be in Economics Bachelor of Arts program.

Governments, businesses, non-profits, funders, and other organizations must allocate scarce resources between competing uses. Understanding the causal effect of policies, programs or investments on key outcomes can guide the choices of these decision-makers. Correlations between policies and outcomes or changes in outcomes after new policies are adopted are rarely sufficient for estimating the causal effect, however. This course focuses on econometric strategies for obtaining unbiased causal estimates, including experimental methods, instrumental variables, regression discontinuity, and differences-in-differences. There will be an emphasis on using Stata and on interpreting the results of econometric analysis

0101	Jessica Goldberg MW 11:00am - 12:15pm	Seats (Total: 40) TYD 2102
0201	Jessica Goldberg MW 2:00pm - 3:15pm	Seats (Total: 40) TYD 2111

ECON418C **Economic Development of Selected Areas; China**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Economic and institutional characteristics of a specific geographic area are identified and discussed, and alternate strategies and policies for development are analyzed.

Prerequisites: 1 course with a minimum grade of C- from (ECON306, ECON326); and 1 course with a minimum grade of C- from (ECON230, BMGT230, ECON321). Restriction: Must be in Economics Bachelor of Arts program (22040). Credit only granted for ECON418C or AREC447. An introductory survey course of economic development in China with emphasis on understanding the process of economic reform in mainland China since 1978.

0101	Jing Cai TuTh 11:00am - 12:15pm	Seats (Total: 47) SYM 0200

ECON422 **Econometrics I**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Prerequisite: 1 course with a minimum grade of C- from (ECON325, ECON326); and 1 course with a minimum grade of C- from (STAT400, ECON321). Restriction: Must be in Economics Bachelor of Science program. Credit only granted for: ECON422, ECON424, or AREC422.

Emphasizes the interaction between economic problems and the assumptions employed in statistical theory. Formulation, estimation, and testing of economic models, including single variable and multiple variable regression techniques, theory of identification, and issues relating to inference.

0101	Alka Gandhi MWF 12:00pm - 12:50pm	Seats (Total: 40) TYD 1118
0201	Alka Gandhi MWF 1:00pm - 1:50pm	Seats (Total: 40) TYD 1118

ECON423 **Econometrics II**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Prerequisite: Minimum grade of C- in ECON422. Restriction: Must be in Economics Bachelor of Science program.

Interaction between economic problems and specification and estimation of econometric models. Topics include issues of autocorrelation, heteroscedasticity, functional form, simultaneous equation models, qualitative choice models, and other computational methods.

0101	John Chao TuTh 9:30am - 10:45am	Seats (Total: 40) TYD 2102
0201	Maureen Cropper MW 2:00pm - 3:15pm	Seats (Total: 45) TYD 2102

ECON424 **Applied Econometrics**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Prerequisite: 1 course with a minimum grade of C- from (ECON305, ECON306, ECON325, ECON326); and 1 course with a minimum grade of C- from (ECON230, BMGT230, ECON321). Restriction: Must be in Economics Bachelor of Arts program. Credit only granted for: ECON422, ECON424 or AREC422.

Provide the knowledge and skills necessary to accomplish and utilize basic applied econometric analysis utilized by many business service providers, government agencies, and nonprofits engaged in policy analysis. Topics include simple and multiple regressions using cross section, time series, and panel data, issues of heteroskedasticity, serial correlation, and multicollinearity, models with binary dependent variable, and program evaluation. Course emphasizes application of knowledge using software packages but still covers essential theoretical background.

0101	Hossein Abbasi TuTh 11:00am - 12:15pm	Seats (Total: 47) TYD 2102
0201	Hossein Abbasi TuTh 12:30pm - 1:45pm	Seats (Total: 47) TYD 2102

0301	Chenyu Mao MW 2:00pm - 3:15pm	Seats (Total: 40) ESJ 2309

ECON426 **Economics of Cost-Benefit Analysis**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Prerequisite: 1 course with a minimum grade of C- from (ECON305, ECON306, ECON325, ECON326); and 1 course with a minimum grade of C- from (ECON230, BMGT230, ECON321). Restriction: Must be in Economics Bachelor of Arts program.

Study of how to use cost benefit analysis and other similar tools of applied microeconomics to conduct policy analyses. Cost-benefit analysis is an empirical method of identifying an optimal choice from a set of policy alternatives, where optimal is defined in terms of economic efficiency. Real world examples are addressed, so that students understand limitations of the methods and also interactions of economic analysis with political and administrative processes.

0101	Ephraim Leibtag Tu 6:30pm - 9:00pm	Seats (Total: 30) TYD 2102
0201	Gentry Johnson MW 5:00pm - 6:15pm	Seats (Total: 27) TYD 2111

ECON427 **Experimental Economics**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Prerequisite: Minimum grade of C- in ECON326; and 1 course with a minimum grade of C- from (ECON321, STAT400). Restriction: Must be in Economics Bachelor of Science program.

An introduction to the methodology of experimental economics and its application to issues such as decision-making under uncertainty, auctions, and public goods. Also an introduction to behavioral economics as a relatively new area of economic research.

0101	Emel Filiz Ozbay TuTh 2:00pm - 3:15pm	Seats (Total: 30) TYD 0102

ECON434 **The Economics of Information and Uncertainty**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Prerequisite: 1 course with a minimum grade of C- from (ECON306, ECON326); and 1 course with a minimum grade of C- from (ECON230, BMGT230, ECON321, STAT400). Restriction: Must be in one of the following programs (Economics Bachelor of Arts; Economics Bachelor of Science). Credit only granted for: ECON498U or ECON434. Formerly: ECON498U.

How do rational agents make decisions when faced with uncertainty? How do markets and other institutions deal with risks? How do markets behave when some actors are better informed than others? What incentives influence whether economic decision-makers hide or reveal information? Topics include the value of information, the purchase of warranties, agency problems in management, adverse selection and moral hazard in insurance, and signaling in education.

0101	Richard Stahnke TuTh 12:30pm - 1:45pm	Seats (Total: 40) TYD 1132

ECON435 **Financial Markets and the Macroeconomy**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Prerequisite: 1 course with a minimum grade of C- from (ECON305, ECON325); and 1 course with a minimum grade of C- from (ECON306, ECON326); and 1 course with a minimum grade of C- from (ECON230, BMGT230, ECON321). Restriction: Must be in Economics Bachelor of Arts program; and must not have completed BMGT343. Credit only granted for: BMGT343 or ECON435. Additional information: Finance majors will not receive credit for ECON435.

The different types of financial assets that exist, the markets that they trade in, and the determination of their prices and rates of return are examined. Specific topics that will be covered include the Markowitz portfolio selection model, the capital asset pricing model, the arbitrage pricing theory, the efficient markets hypothesis, the term structure of interest rates, and options. There will be almost no emphasis on issues in corporate finance.

0101	Richard Stahnke TuTh 3:30pm - 4:45pm	Seats (Total: 40) TYD 1118
0201	Richard Stahnke TuTh 5:00pm - 6:15pm	Seats (Total: 40) TYD 1118

ECON436 **Financial Econometrics**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Prerequisite: Minimum grade of C- in ECON325 and ECON422. Restriction: Must be in Economics Bachelor of Science program.

An introduction to financial econometrics, which is data science applied to understanding the financial system. Students will learn modern techniques in financial econometrics with an emphasis on the interaction between modeling (theory) and empirical analysis. Topics include relevant economic theory, optimization techniques, probability models, statistical analysis, and use of statistical software.

0101	Jintae Kim	Seats (Total: 40)
	TuTh 3:30pm - 4:45pm	TYD 2102

ECON441 **Theory of International Economics**

Credits: 3

Grading Method: Regular, Pass-Fail, Audit

Prerequisite: Minimum grade of C- in ECON326 and ECON325. Restriction: Must be in a major within the BSOS-Economics department; and must not have completed ECON340, ECON442, or ECON443. Credit only granted for: ECON340, ECON441, ECON442, or ECON443.

Theoretical treatment of international trade and international finance. Includes Ricardian and Heckscher-Ohlin theories of comparative advantage, analysis of tariffs and other trade barriers, international factor mobility, balance of payments adjustments, exchange rate determination, and fiscal and monetary policy in an open economy.

Contact department for information to register for this course.

ECON442 **Globalization and Capital Markets**

Credits: 3

Grading Method: Regular, Pass-Fail, Audit

Prerequisite: Minimum grade of C- in ECON326 and ECON325; and 1 course with a minimum grade of C- from (ECON321, STAT400). Restriction: Must be in Economics Bachelor of Science program; and must not have completed ECON441. Credit only granted for: ECON441 or ECON442.

Uses models of open-economy macroeconomics to explain the causes and consequences of international capital flows. Analysis is made of private consumption, investment, the government sector, current accounts, the labor market, and the money and foreign exchange markets in small open economies. This framework is then used to study examples of how speculative attacks on currencies, sudden reversals of capital inflows, and the effects of the lack of credibility of economic policy affect economic development.

0101	Jintae Kim	Seats (Total: 40)
	TuTh 12:30pm - 1:45pm	TYD 2111

ECON443 **International Trade and Trade Policy in the New Global Economy**

Credits: 3

Grading Method: Regular, Pass-Fail, Audit

Prerequisite: 1 course with a minimum grade of C- from (ECON305, ECON325); and 1 course with a minimum grade of C- from (ECON306, ECON326); and 1 course with a minimum grade of C- from (ECON230, BMGT230, ECON321). Restriction: Must be in Economics Bachelor of Arts program; and must not have completed ECON441. Credit only granted for: ECON441 or ECON443.

Examines the economics of international economic integration, including the theory of customs unions and free trade areas, the role of GATT and the WTO, changes in individual countries' foreign trade policies during the new era of globalization, the special role of multinational firms in world trade, and recent controversies about the benefits and costs of globalized trade.

0101	Stefania Scandizzo	Seats (Total: 40)
	MWF 12:00pm - 12:50pm	TYD 0101

ECON444 **Research in Globalization**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Prerequisite: Minimum grade of C- in ECON326 and ECON422. Restriction: Must be in Economics Bachelor of Science program. Credit only granted for: ECON498G or ECON444. Formerly: ECON498G.

As globalization continues, individual countries must confront a variety of related issues including rising inequality, decline of domestic industries, climate change, and disputes over intellectual property rights. Various economic models and research methods will be covered to develop the analytic and empirical skills needed to perform independent research in globalization. Students will prepare literature reviews, conduct preliminary empirical investigations using STATA, and produce well-designed research proposals.

0201	Eunhee Lee	Seats (Total: 22)
	MW 11:00am - 12:15pm	TYD 2111

ECON455 **Economics of Education Policy**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Prerequisite: 1 course with a minimum grade of C- from (ECON306, ECON326); and 1 course with a minimum grade of C- from (ECON230, BMGT230, ECON321). Restriction: Must be in Economics Bachelor of Arts program. Credit only granted for: ECON468E or ECON455. Formerly: ECON468E.

Examines the role that government plays in providing and financing education. Analyzes why people invest in education. Considers the effects of education on long-term social and economic outcomes, the behavior of institutions that produce education, and how to design and implement public policies affecting the level and distribution of educational resources. Uses microeconomic models and empirical findings to analyze current issues in education policy.

0101	Nolan Pope MW 10:30am - 11:45am	Seats (Total: 30) TYD 1114

ECON456 **Law and Economics**

Credits: 3

Grading Method: Regular, Pass-Fail, Audit

Prerequisite: 1 course with a minimum grade of C- from (ECON306, ECON326); and 1 course with a minimum grade of C- from (ECON230, BMGT230, ECON321). Restriction: Must be in Economics Bachelor of Arts program.

Relationship of the exchange process to the system of institutions and rules that society develops to carry out economic transactions. Topics covered include: Property rights; torts, negligence, and liability; contracts and exchanges; criminal control and enforcement; equity and efficiency issues .

0101	Aaron Finkle MW 3:30pm - 4:45pm	Seats (Total: 80) TWS 0320

ECON458Q **Special Topics in Study Abroad IV; State and Economy**

Credits: 3

Grading Method: Regular, Pass-Fail, Audit

Special topics course taken as part of an approved study abroad program.

Contact department for information to register for this course.

ECON460 **Industrial Organization**

Credits: 3

Grading Method: Regular, Pass-Fail, Audit

Prerequisite: Minimum grade of C- in ECON326; and 1 course with a minimum grade of C- from (ECON321, STAT400). Restriction: Must be in Economics Bachelor of Science program.

Examines different theoretical models of firm behavior in markets with varying amounts of market power. Relates theory to specific industries and examines how market structure evolves over time.

Contact department for information to register for this course.

ECON463 **Economics of Sports**

Credits: 3

Grading Method: Regular, Pass-Fail, Audit

Prerequisite: 1 course with a minimum grade of C- from (ECON306, ECON326); and 1 course with a minimum grade of C- from (ECON230, BMGT230, ECON321, STAT400). Restriction: Must be in Economics Bachelor of Arts program.

The application of theoretical and empirical economic tools to the sports industry, including competition at professional,collegiate, and international levels. Microeconomic models from labor, industrial organization and public finance will be applied to the sports industry and combined with data from sports markets, providing students with opportunities to produce and interpret economic analysis. The topic of discrimination will also be explored in the context of this particular economic activity.

0101	Nicholas Montgomery MW 9:00am - 10:15am	Seats (Total: 36) TYD 1132
0201	Nicholas Montgomery MW 10:30am - 11:45am	Seats (Total: 36) TYD 1132

ECON470 **Labor Economics:Theory and Evidence**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Prerequisite: Minimum grade of C- in ECON326; and 1 course with a minimum grade of C- from (ECON321, STAT400). Restriction: Must be in Economics Bachelor of Science program.

An analytical treatment of theories of labor markets, and an examination of empirical findings, evidence and conclusions. Topics covered will include some or all of the following: labor demand; labor supply and labor market participation; theory of human capital; earnings differentials; and if time allows, market structure and the efficiency of labor markets; and unemployment.

Contact department for information to register for this course.

ECON471 **Labor Markets**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Prerequisite: 1 course with a minimum grade of C- from (ECON306, ECON326); and minimum grade of C- in ECON424. Restriction: Must be in Economics Bachelor of Arts program. Credit only granted for: ECON470 or ECON471.

Central topics include the determinants of firms' demand for labor and households' decision making about whether to work, how much to work, and where to work. We will then study the equilibrium amount of labor hired in society and the wages paid to workers. The course will also include the measurement of the labor market, human capital, discrimination, incentives, and current changes in the American economic landscape. Various economic policies impacting labor markets will be analyzed.

0101	Judith Hellerstein MW 11:00am - 12:15pm	Seats (Total: 70) TYD 1101

ECON472 **Economics of Social Safety Nets**

Credits: 3

Grading Method: Regular, Pass-Fail

Prerequisite: 1 course with a minimum grade of C- from (ECON306, ECON326); and minimum grade of C- in ECON424. Restriction: Must be in Economics Bachelor of Arts program.

Analysis of the economic issues associated with social safety nets. Topics to be covered include the cash transfer programs for breaking the cycle of poverty, labor market policies aimed at combating unemployment, childhood interventions to improve human capital development, and the challenges faced by pension systems over the world. The approach is based on a life-cycle perspective. Evidence and experiences from developed and developing countries will covered.

0101	Sergio Urzua	Seats (Total: 30)
	MW 9:30am - 10:45am	TYD 1108

ECON481 **Environmental Economics**

Credits: 3

Grading Method: Regular, Pass-Fail, Audit

Prerequisite: 1 course with a minimum grade of C- from (AREC326, ECON306, ECON326); and 1 course with a minimum grade of C- from (ECON230, ECON321, BMGT230). Restriction: Must be in one of the following programs (Agricultural and Resource Economics; Agricultural and Resource Economics: Agribusiness; Environmental Science & Policy-Env Economics; Agricultural and Resource Economics: Environmental and Resource Economics; Economics Bachelor of Arts program). Cross-listed with: AREC481. Credit only granted for: ECON481 or AREC481.

An exploration of the use of economic incentives for protection of the environment and the determination of appropriate (or efficient) level of environmental quality. Also covers the choice of policy instruments for the attainment of environmental standards.

0101	Roberton Williams	Seats (Total: 80)
	TuTh 2:00pm - 3:15pm	SYM 0200

ECON484 **The Economics of Climate Change**

Credits: 3

Grading Method: Regular, Pass-Fail, Audit

Prerequisite: 1 course with a minimum grade of C- from (AREC326, ECON306, ECON326); and 1 course with a minimum grade of C- from (ECON230, ECON321, BMGT230). Cross-listed with: AREC454. Credit only granted for: AREC454 or ECON484.

The role of economics in the formation of climate policy; basic concepts of environmental economics including efficiency, externalities, and policy instruments; economic models of intertemporal decisions and decision making in the face of uncertainty. Applied economic analysis of specific issues and current policy initiatives.

0101	Anna Alberini	Seats (Total: 35)
	MW 2:00pm - 3:15pm	SYM 0215

ECON486 **Energy and Environmental Economics**

Credits: 3 Grading Method: Regular, Pass-Fail

Prerequisite: 1 course with a minimum grade of C- from (AREC326, ECON306, ECON326); and 1 course with a minimum grade of C- from (ECON230, ECON321, BMGT230). Cross-listed with: AREC456. Credit only granted for: AREC456 or ECON486.

Economic theory and empirical methods are used to study problems of energy, the environment, and the economy. It examines the extraction, production, and use of energy and market institutions and regulatory approaches used to correct market failures. Topics covered include: oil and natural gas markets, management and design of electricity markets, renewable energy, non-market valuation , climate change, and transportation policies.

0101	Joshua Linn	Seats (Total: 80)
	TuTh 12:30pm - 1:45pm	SYM 0200

ECON488K **Applied Research Practicum; Kaulkin Ginsberg Research Fellow**

(Perm req)

Credits: 3 Grading Method: Sat-Fail

Students gain experience applying economic knowledge and producing research valued by businesses, non-profits, and/or government agencies. Students engage in activities similar to what an intern or entry-level employee would perform. Students work in small groups to find different kinds of data and facts, analyze and interpret this information, and use research findings to develop and present recommendations for simulated clients.

Permission for this practicum is based on an approved application. For more information about course requirements and application please contact ECON Advising.

0101	Aaron Finkle, John Hannan	Seats (Total: 16)
	M 5:30pm - 7:30pm Contact instructor or department for details.	TYD 1118

ECON489C **Applied Economics Practicum; FLOAT Service Learning**

(Perm req)

Credits: 2 Grading Method: Regular, Pass-Fail

Students gain experience explaining economic knowledge to people who have not studied economics. Students engage in activities preparing them for careers in banking, business consulting, financial education, wealth management, and related services.

This course is part of the Financial Literacy Outreach and Training (FLOAT) program. Permission to enroll based on successful completion of ECON488L or ECON489L.

0101	Cindy Clement	Seats (Total: 20)	
	M 6:00pm - 7:00pm Contact instructor or department for details.	TYD 0111	

ECON499 **Independent Research in Economics**

(Perm req)

Credits: 1-3 Grading Method: Regular, Pass-Fail

Directed research under the supervision of a faculty member. Contact department for additional information.

Contact department for information to register for this course.

ECON602 **Macroeconomic Analysis II**

(Perm req)

Credits: 3 Grading Method: Regular, Audit, Sat-Fail

Prerequisite: ECON601; or permission of BSOS-Economics department.

Further issues regarding macroeconomic topics. First half emphasis will be placed on dynamic macroeconomic theory as pertaining to monetary issues, policy ineffectiveness and effectiveness. The second half of the course will focus on theories of investment and growth.

0101	Sadik Aruoba, John Haltiwanger	Seats (Total: 48)	
	MW 9:30am - 10:45am	TYD 1101	
	M 5:00pm - 6:45pm	TYD 1101	Discussion

ECON604 **Microeconomic Analysis II**

(Perm req)

Credits: 3 Grading Method: Regular, Audit, Sat-Fail

Prerequisite: ECON603. Restriction: Permission of BSOS-Economics department.

Analysis of markets and market equilibria; the Arrow-Debreu model of general equilibrium, the two-sector model, welfare theorems, externalities, public goods, markets with incomplete and asymmetric information.

0101	Erkut Ozbay, Daniel Vincent	Seats (Total: 45)	
	TuTh 2:00pm - 3:15pm	TYD 2102	
	Tu 5:15pm - 6:45pm	TYD 2108	Discussion

ECON613 **Origins and Development of Capitalism**

Credits: 3 Grading Method: Regular, Audit, Sat-Fail

Institutions and technology shaping pre-capitalist economies: Archaic, Greek and Roman, Feudal, and Mercantile. Rise of the market system, national economies, and capitalism. The nature of industrial society. Imperialism.

0101	John Wallis	Seats (Total: 20)	
	TuTh 2:00pm - 3:15pm	LEF 1222	

ECON615 **Development Economics I**

Credits: 3 Grading Method: Regular, Audit, Sat-Fail

Prerequisite: ECON603; or permission of BSOS-Economics department.

Explore both the causes and consequences in development economics from a historical and scientific approach. Presents theoretical models and applied work that test alternative hypotheses. Explore models of economic growth and institutions, with emphasis on property rights and political regimes as causal factors affecting development. Discuss empirical methods widely used in the field and important related topics including poverty, inequality, education and health.

0101	Sebastian Galiani	Seats (Total: 15)	
	MW 11:00am - 12:15pm	KEY 0124	

ECON624 **Econometrics II**

(Perm req)

Credits: 3 Grading Method: Regular, Audit, Sat-Fail

Prerequisite: ECON623; or permission of BSOS-Economics department.

A continuation of ECON623. Topics include: Nonlinear models and nonlinear estimation methods (generalized method of moments and maximum likelihood estimation), panel data models, univariate dynamic models, multivariate dynamic models including simultaneous equation models, and non-parametric/semiparametric estimation methods. The course will also provide instructions on the use of a major statistical package such as Stata or TSP.

0101	John Chao, Ingmar Prucha	Seats (Total: 30)	
	TuTh 12:30pm - 1:45pm	TYD 0101	
	W 5:30pm - 7:15pm	TYD 0102	Discussion

ECON636 **Behavioral Economics**

(Perm req)

Credits: 3

Grading Method: Regular,
Audit, Sat-Fail

Prerequisite: ECON603 and ECON604; and permission of BSOS-Economics department.

An exploration of how people make decisions, questioning the concept of "perfect rationality" in the standard economic theory, providing improved models in line with the observed biases of decision makers. Focusing on decision making under risk and ambiguity, endowment effect, status quo bias, loss aversion, intertemporal choice, and selfish and pro-social preferences.

0101	Emel Filiz Ozbay	Seats (Total: 15)	
	TuTh 11:00am - 12:15pm	TYD 0101	

ECON641 **Microeconomic Analysis**

Credits: 3

Grading Method: Regular,
Audit, Sat-Fail

Restriction: Must be in M.Prof.Studies: Applied Economics program; or permission of BSOS-Economics department. Credit only granted for: ECON641 or ECON506. Formerly: ECON506.

Microeconomic analysis applied to public policy problems with an emphasis on practical examples and how they illustrate microeconomic theories. Policy issues such as pollution, welfare and income distribution, market design, industry regulation, price controls, tax policy and health insurance are practical examples used to illustrate the abstract principles of microeconomics.

Must be in Applied Economics-WDC Program; for permission to enroll, contact oes@umd.edu.

Click here for more course information.

PR01	Aaron Finkle	Seats (Total: 24)	
	Meets February 27, 2020 - May 20, 2020		
	Tu 6:45pm - 9:30pm	Location: TBA	
	Class time/details on ELMs	ONLINE	Discussion
	Class meets at 1400 16th St, NW, Washington, DC.		

ECON643 **Empirical Analysis I: Foundations of Empirical Research**

Credits: 3

Grading Method: Regular,
Audit, Sat-Fail

Credit only granted for: ECON643 or ECON521. Formerly: ECON521.

Fundamental aspects of data management and interpretation emphasizing sampling, descriptive statistics, index numbers and construction of aggregated variables. Students will learn probability theory, confidence intervals, hypothesis testing and regression analysis using the EXCEL spreadsheet program and STATA statistical software.

Must be in Applied Economics-WDC Program; for permission to enroll, contact oes@umd.edu.

Click here for more course information.

PR01	John Straub	Seats (Total: 23)	
	Meets February 27, 2020 - May 20, 2020		
	W 6:45pm - 9:30pm	Location: TBA	
	Class time/details on ELMs	ONLINE	Discussion
	This course meets at 1400 16th Street NW, Washington D.C., Suite 140.		

ECON644 **Empirical Analysis II: Introduction to Economic Models**

Credits: 3 Grading Method: Regular, Audit, Sat-Fail

Prerequisite: ECON643.

An introduction to econometric methods with applications to public policy analysis. Primary focus on application and interpretation of multiple regression analysis.

Must be in Applied Economics-UMCP program; for permission to enroll, contact oes@umd.edu.

Click here for more course information.

PCE1	Hossein Abbasi	Seats (Total: 30)
	M 6:30pm - 9:15pm	TYD 2102

ECON645 **Empirical Analysis III: Econometric Modeling and Forecasting**

Credits: 3 Grading Method: Regular, Audit, Sat-Fail

Prerequisite: ECON644. Credit only granted for: ECON645 or ECON523. Formerly: ECON523.

Study of empirical techniques that are particularly relevant to the analysis of microeconomic models. Emphasis is on advanced panel data methods, time series regressions, instrumental variables, limited dependent variables, and sample selection corrections.

Must be in Applied Economics-WDC Program; for permission to enroll, contact oes@umd.edu.

Click here for more course information.

PR01	Moises Yi	Seats (Total: 23)	
	Meets February 27, 2020 - May 20, 2020		
	M 6:45pm - 9:30pm	Location: TBA	
	Class time/details on ELMs	ONLINE	Discussion
	Class meets at 1400 16th St, NW, Washington, DC.		

ECON662 **Theories of Industrial Organization**

Credits: 3 Grading Method: Regular, Audit, Sat-Fail

Prerequisite: ECON604 and ECON603.

Dynamic models are important tools to understand intertemporal individual choices and industry evolution. The course discusses a number of issues estimating and solving dynamic models, complimenting and building on the methods and topics introduced in 625. The course also covers models of endogenous product choice, matching and market design. There will be two main sets of assignments, where students simulate data by solving models, estimate models based on simulated or real data and perform counterfactual analyses. The students will also be expected to submit a research proposal.

0101	Chenyu Yang	Seats (Total: 20)
	F 9:30am - 12:15pm	TYD 3100

ECON670 **Financial Economics**

Credits: 3 Grading Method: Regular, Audit, Sat-Fail

Prerequisite: ECON641; and must have completed or be concurrently enrolled in ECON644. Restriction: Must be in M.Prof.Studies: Applied Economics program.

The course applies microeconomic theory and applied econometric techniques to the study of financial institutions and markets for financial assets. Students will learn how economists model and estimate the value of financial assets. The economic and empirical models are of interest to public policy makers and private wealth managers. Specific topics can include financial intermediation, the regulation of financial institutions, risk management, portfolio theory, the capital asset pricing model and the efficient markets hypothesis.

PR01	Lubomir Petrasek	Seats (Total: 23)
	Meets February 27, 2020 - May 20, 2020	
	Th 6:45pm - 9:30pm Class time/details on ELMs	Location: TBA ONLINE
	Must be in Applied Economics-WDC Program; for permission to enroll, contact oes@umd.edu. Class meets at 1400 16th Street NW., Washington, DC.	

ECON673 **Information, Game Theory and Market Design**

Credits: 3 Grading Method: Regular, Audit, Sat-Fail

Prerequisite: ECON641; and must have completed or be concurrently enrolled in ECON644.

A study of the strategic decision-making and the theory and practice of market design. Focus is on the design of organized market and incentives created by market rules. Topics include online auction markets, government auctions procurement auctions and matching markets. The analysis includes documenting the rules of real-world markets, game theoretic analysis, empirical analysis, and experimental work.

Must be in Applied Economics-UMCP program; for permission to enroll, contact oes@umd.edu.

Click here for more course information.

PCE1	David Ovadia	Seats (Total: 30)
	Tu 6:30pm - 9:15pm	TYD 0111
PR01	Justin Grana	Seats (Total: 23)
	Meets February 27, 2020 - May 20, 2020	
	Tu 6:45pm - 9:30pm	Location: TBA
	Must be in Applied Economics-WDC program. For permission to enroll, must be admitted into a term-based calendar graduate program. Contact oes@umd.edu. This course meets at 1400 16th St, NW, Suite 140, Washington, DC.	

ECON676 **Economic Development**

Credits: 3 Grading Method: Regular, Audit, Sat-Fail

Prerequisite: ECON641; and ECON642; and must have completed or be concurrently enrolled in ECON644. Restriction: Must be in M.Prof.Studies: Applied Economics program.

Analysis of economic development. The course will focus on the consequences of poverty and poor institutions for the behavior and welfare of individuals, households, firms and the aggregate economy in developing countries. Theoretical models and empirical evidence will be used to understand the intended and unintended consequences of policies designed to enhance economic development.

PCE1	Steven Payson W 6:30pm - 9:15pm *Must be in Applied Economics-UMPC program. For permission to enroll, contact oes@umd.edu.*	Seats (Total: 30) TYD 2102
PR01	Giordano Palloni, Sylvan Herskowitz **Meets February 27, 2020 - May 20, 2020** W 6:45pm - 9:30pm Class time/details on ELMs *Must be in Applied Economics-WDC Program; for permission to enroll, contact oes@umd.edu. Class meets at 1400 16th Street NW., Washington, DC.*	Seats (Total: 23) Location: TBA ONLINE

ECON684 **Applied Time Series Analysis and Forecasting**

Credits: 3 Grading Method: Regular, Audit, Sat-Fail

Prerequisite: ECON642; and ECON645. Restriction: Must be in M.Prof.Studies: Applied Economics program.

This course builds on the brief introduction to time series econometrics offered in ECON 645. Students will learn the theory of stationary processes and how it applies to econometric techniques for estimation and forecasting based on time series data. The techniques will be applied in macroeconomic, financial and business applications.

Must be in Applied Economics-UMCP program; for permission to enroll, contact oes@umd.edu.

Click here for more course information.

PCE1	Sungho Noh M 6:30pm - 9:15pm	Seats (Total: 30) MOR 1101

ECON698 **Selected Topics in Economics**

(Perm req)

Credits: 3 Grading Method: Regular, Audit, Sat-Fail

Contact department for information to register for this course.

ECON702 **Advanced Macroeconomics II**

(Perm req)

Credits: 3

Grading Method: Regular, Audit, Sat-Fail

Prerequisite: ECON602 and ECON601.

Selected issues in monetary economics with an equal emphasis of learning the models and understanding important issues: a survey of models (cash-in-advance, money-in-the-utility-function, transaction cost, search-based models), empirical issues in monetary economics, business cycles and money, monetary policy, welfare cost of inflation, alternative media of exchange.

0101	L Stevens F 1:00pm - 4:00pm	Seats (Total: 20) TYD 1114

ECON704 **Advanced Microeconomics II**

(Perm req)

Credits: 3

Grading Method: Regular, Audit, Sat-Fail

Prerequisite: ECON604 and ECON603.

This is the second half of a two-semester sequence in Advanced Microeconomics, intended for second-year Ph.D. students. The course material varies from year-to-year, but currently it focuses on auction theory, matching theory, and the relationship between matching and auction theory. Other topics that are treated in some years include: sequential bargaining under incomplete information; and equilibrium refinements.

0101	Lawrence Ausubel TuTh 2:00pm - 3:15pm	Seats (Total: 20) TYD 0101

ECON708 **Advanced Topics in Applied and Theoretical Microeconomics**

(Perm req)

Credits: 2

Grading Method: Sat-Fail, Audit

Read, discuss, and analyze current topics in microeconomics, including public economics, environmental economics, labor economics, industrial economics, microeconomic theory, public choice and international trade. Specific topics covered will change from semester to semester depending on the students' and faculty's interests. Intended primarily for students beginning thesis research in economics.

0101	Maureen Cropper MW 12:30pm - 1:45pm	Seats (Total: 15) TYD 0111
0301	Sebastian Galiani MW 12:30pm - 1:45pm	Seats (Total: 15) Location: TBA

0401	Yusuf Masatlioglu MW 12:30pm - 1:45pm	Seats (Total: 15) Location: TBA
0501	Nolan Pope MW 12:30pm - 1:45pm	Seats (Total: 15) Location: TBA

ECON709 **Advanced Topics in Applied and Theoretical Macroeconomics**

(Perm req)

Credits: 2 Grading Method: Sat-Fail, Audit

Read, discuss, and analyze current topics in macroeconomics, including asset pricing models, models of economic growth, investment, and the labor market. Specific topics covered will change from semester to semester depending on the students' and faculty's interests. Intended primarily for students beginning thesis research in economics.

0101	Sadik Aruoba TuTh 12:30pm - 1:45pm	Seats (Total: 10) TYD 1108
0201	Allan Drazen TuTh 12:30pm - 1:45pm	Seats (Total: 15) Location: TBA
0301	Eunhee Lee TuTh 12:30pm - 1:45pm	Seats (Total: 15) Location: TBA
0401	Felipe Saffie TuTh 12:30pm - 1:45pm	Seats (Total: 10) Location: TBA

ECON722 **Econometrics IV**

(Perm req)

Credits: 3 Grading Method: Regular, Audit, Sat-Fail

Prerequisite: ECON624; or permission of BSOS-Economics department.

Oriented towards micro-econometric methods. Topics covered will be selected from the following: Further discussion of topics covered in ECON624, binary and multinomial response models, censored and truncated regression models, sample selection models, count data models, duration models program evaluation and treatment effects methods, structural econometrics, the identification problem, stratified and clustered samples, spatial/cross sectional dependence models, dynamic panel data models, weak instruments, non-parametric estimation, boot strap and Jack Knife methods, pre-test estimators.

0101	John Chao, Ingmar Prucha TuTh 5:00pm - 7:30pm	Seats (Total: 20) TYD 0102

ECON741 **Advanced International Economics I**

Credits: 3 Grading Method: Regular, Audit, Sat-Fail

Prerequisite: ECON601; or permission of BSOS-Economics department.

Exchange rate determination; exchange rate regimes; international monetary reform; policy conflict and cooperation; the LDC debt problem; pricing of international assets; balance of payments crises.

0101	Felipe Saffie TuTh 9:30am - 10:45am	Seats (Total: 20) TYD 1132

ECON743 **Topics in International Finance**

Credits: 3 Grading Method: Regular, Audit, Sat-Fail

Prerequisite: ECON602; or permission of BSOS-Economics department. Recommended: ECON741.

Puzzles in international finance; portfolio balance, current account dynamics, exchange rate behavior; capital market imperfections; balance of payments crises.

0101	Sebnem Kalemli-Ozcan W 5:00pm - 7:30pm	Seats (Total: 20) TYD 0101

ECON745 **Advanced Topics in International Trade**

Credits: 3 Grading Method: Regular, Audit, Sat-Fail

Prerequisite: ECON604 and ECON624. Credit only granted for: ECON698L or ECON745. Formerly: ECON698L.

Designed primarily for students planning to write dissertations on a topic related to international trade. Its focus is on recent research in this field including tests of trade theories; the effects of trade on growth and knowledge diffusion; the political economy of trade policy and the theory and practice of trade agreements.

0101	Eunhee Lee MW 9:30am - 10:45am	Seats (Total: 20) TYD 3100

ECON752 **Public Economics II**

Credits: 3 Grading Method: Regular, Audit, Sat-Fail

Prerequisite: ECON751.

Theoretical and empirical issues in taxation, with particular emphasis on income taxation.

0101	Melissa Kearney	Seats (Total: 20)
	MW 2:00pm - 3:15pm	TYD 2110

ECON756 **Empirical Political Economics**

Credits: 3 Grading Method: Regular, Audit, Sat-Fail

An introduction to empirical political economy. Determinants of individual political behavior and the impact of political rules on economic outcomes will both be analyzed. Modern applied econometric techniques will also be covered.

0101	Ethan Kaplan	Seats (Total: 20)
	TuTh 9:30am - 10:45am	TYD 0101

ECON772 **Population Economics**

(Perm req)

Credits: 3 Grading Method: Regular, Audit, Sat-Fail

Prerequisite: ECON771; or permission of BSOS-Economics department.

Covers the central ideas in population economics. These include theory and test of theories of mortality, fertility and immigration.

0101	Nolan Pope	Seats (Total: 20)
	MW 9:00am - 10:15am	TYD 1114

ECON799 **Master's Thesis Research**

Credits: 1-6 Grading Method: Sat-Fail

Contact department for information to register for this course.

ECON808 **Workshop on Macroeconomics, International Macroeconomics and International Finance**

(Perm req)

Credits: 2 Grading Method: Sat-Fail, Audit

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ECON graduate students only.

0101	Sadik Aruoba W 3:30pm - 6:00pm	Seats (Total: 15) TYD 1101
0201	Eunhee Lee W 3:30pm - 6:00pm	Seats (Total: 15) Location: TBA
0301	Felipe Saffie W 3:30pm - 6:00pm	Seats (Total: 15) Location: TBA

ECON828 **Workshop in Econometrics**

Credits: 2 Grading Method: Sat-Fail, Audit

Current research in econometrics. Topics drawn from theoretical and applied econometrics. Special topics include: maximum likelihood and generalized method of moments estimation of linear and non-linear models, analysis of stationary and non-stationary time series, cross section time series estimation, spatial estimation mehtods, Bayesian methods, semi-and non-parametic methods, rational expectations models, numerical methods, and various applications.

0101	Instructor: TBA M 3:30pm - 6:00pm	Seats (Total: 20) Location: TBA

ECON848 **Workshop in International Trade, Institutional Economics and Political Economy**

(Perm req)

Credits: 2 Grading Method: Sat-Fail, Audit

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ECON graduate students only.

0101	Allan Drazen M 3:30pm - 6:00pm	Seats (Total: 30) TYD 1132

ECON868 **Workshop in Industrial Organization, Microeconomic Theory and Behavioral and Experimental Economics**

(Perm req)

Credits: 2 Grading Method: Sat-Fail, Audit

Workshops designed to provide a structured environment for our faculty and graduate students to meet regularly to discuss and present their research ideas.

ECON graduate students only.

0101	Yusuf Masatlioglu Tu 3:30pm - 6:00pm	Seats (Total: 20) TYD 0101
0201	Daniel Vincent Tu 3:30pm - 6:00pm	Seats (Total: 20) Location: TBA

ECON878 **Workshop in Development, Labor and Public Economics**

(Perm req)

Credits: 2 Grading Method: Sat-Fail, Audit

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ECON graduate students only.

0101	Maureen Cropper Th 3:30pm - 6:00pm	Seats (Total: 15) TYD 0101
0201	Sebastian Galiani Th 3:30pm - 6:00pm	Seats (Total: 15) Location: TBA

ECON898 **Pre-Candidacy Research**

(Perm req)

Credits: 1-8 Grading Method: Sat-Fail

Contact department for information to register for this course.

ECON899 **Doctoral Dissertation Research**

(Perm req)

Credits: 6 Grading Method: Sat-Fail

Contact department for information to register for this course.

EDCP Education Counseling and Personnel Services Spring 2020

EDCP105 **Professional Development Leadership Diversity Seminar**

Credits: 1 Grading Method: Regular, Pass-Fail

Restriction: Must be in the College Success Scholars Program; and permission of instructor. Credit only granted for: EDCP105 or EDCP108N. Formerly: EDCP108N.

An experiential and theoretical examination of how to successfully navigate through the job search, application process, interviews, and networking opportunities in a professional environment with an emphasis on inclusion and diversity issues

0101	Christopher Lester W 6:00pm - 7:50pm	Seats (Total: 40) ESJ 2212

EDCP108I **College and Career Advancement: Concepts and Skills; Academic Transitions to Internships**

Credits: 1 Grading Method: Regular, Pass-Fail, Audit

Knowledge and skills designed to enhance college as a learning experience or preparation for life.

Restricted to students with less than 105 cumulative credits. Recommended for students who have never had an internship and are actively searching for one. Students participating in this course will engage in the full experience of searching for an internship. Course registration is closed to graduating seniors."

0101	Madeline McCaslin **Meets January 27, 2020 - March 13, 2020** Class time/details on ELMs	Seats (Total: 30) ONLINE
0201	Erica Ely **Meets January 27, 2020 - March 13, 2020** Class time/details on ELMs	Seats (Total: 30) ONLINE
0301	Trisha Hongcharti **Meets January 27, 2020 - March 13, 2020** Class time/details on ELMs	Seats (Total: 30) ONLINE
0401	Madeline McCaslin **Meets March 23, 2020 - May 8, 2020** Class time/details on ELMs	Seats (Total: 30) ONLINE
0501	Erin Rooney-Eckel **Meets March 23, 2020 - May 8, 2020** Class time/details on ELMs	Seats (Total: 30) ONLINE

0601	Sarah Vollaro **Meets January 27, 2020 - March 13, 2020** Class time/details on ELMs *This section is restricted to CMNS students only.*	Seats (Total: 30) ONLINE

EDCP210 **Peer Counseling Skills and Mental Health Advocacy**

Credits: 3 | Grading Method: Regular, Pass-Fail | General Education: DSSP

Restriction: Must not have completed EDCP310; and must not have completed PSYC433. Credit only granted for: EDCP210, EDCP310, or PSYC433.

Introduction to core helping skills in peer counseling settings and three predominant theoretical approaches used in the counseling field (humanistic, psychodynamic, cognitive-behavioral). The course also explores mental health stigma and advocacy. Students will build an understanding of the practical application of underlying principles and theory in counseling and the helping professions, while exploring their own, and societal, biases, assumptions, and attitudes toward mental health.

0101	Samantha Sommer MW 9:30am - 10:45am	Seats (Total: 18) EDU 3315
0301	Jocelyn Yao MW 1:00pm - 2:15pm	Seats (Total: 18) EDU 3236
0401	Alexandria Travis MW 10:00am - 11:15am	Seats (Total: 18) HBK 1108
0601	Bhanu Moturu MW 12:00pm - 1:15pm	Seats (Total: 18) LEF 1171
0701	Kristin Meyering MW 10:00am - 11:15am	Seats (Total: 18) EDU 3233
0801	Priya Bansal MW 3:00pm - 4:15pm	Seats (Total: 18) EDU 3236

EDCP298 **Special Problems in Counseling and Personnel Services**

Credits: 1-3 | Grading Method: Regular, Pass-Fail

Individual instruction in special problems related to counseling, student leadership, and college student development.

Contact department for information to register for this course.

EDCP386 **Experiential Learning**

(Perm req)

Credits: 3-6 Grading Method: Regular, Pass-Fail

Restriction: Permission of EDUC-Counseling, Higher Education and Special Education department; and sophomore standing or higher.

Special EDCP form required.

Contact department for information to register for this course.

EDCP489 **Field Experiences in Counseling and Personnel Services**

(Perm req)

Credits: 1-4 Grading Method: Regular, Pass-Fail General Education: DVUP

Planned field experience in education-related activities. Credit not to be granted for experiences accrued prior to registration.

Contact department for information to register for this course.

EDCP498 **Special Problems in Counseling and Personnel Services**

(Perm req)

Credits: 1-3 Grading Method: Regular, Pass-Fail

Available only to major students who have formal plans for individual study of approved problems.

Contact department for information to register for this course.

EDCP498B **Special Problems in Counseling and Personnel Services; From Africa to South America - The Afro-Brazilian Experience**

Credits: 1 Grading Method: Regular, Pass-Fail, Audit

Available only to major students who have formal plans for individual study of approved problems.

Contact department for information to register for this course.

EDCP611 **Career Development Theory and Programs**

Credits: 3 Grading Method: Regular, Audit, Sat-Fail

Research and theory related to career and educational decisions; programs of related information and other activities in career decision.

Contact department for information to register for this course.

EDCP612 **Multicultural Issues in Counseling and Personnel Services**

(Perm req)

Credits: 3 Grading Method: Regular, Audit, Sat-Fail

Restriction: Permission of EDUC-Counseling, Higher Education and Special Education department.

Socio-psychological, philosophical, clinical, and research topics related to the provision of counseling and personnel services, academic support, and career development for minority students on predominantly white college and university campuses. Implications of race and/or national origin on opportunities for personal, social, academic, and career development in educational settings.

0101	Richard Shin M 4:15pm - 7:00pm	Seats (Total: 15) EDU 2102

EDCP614 **Counseling Skills: Introduction to Practicum**

Credits: 3 Grading Method: Regular, Audit, Sat-Fail

Corequisite: EDCP616.

Development and utilization of counseling skills.

0101	Roger Worthington W 1:30pm - 4:15pm	Seats (Total: 15) LEF 1171

EDCP621 **Practicum in School Counseling**

(Perm req)

Credits: 3 Grading Method: Regular, Audit, Sat-Fail

Prerequisite: EDCP616. Restriction: Permission of EDUC-Counseling, Higher Education and Special Education department. Credit only granted for: EDCP619D or EDCP621. Formerly: EDCP619D.

Sequence of supervised counseling experiences of increasing complexity.

0101	Jessica McKechnie W 4:15pm - 7:00pm	Seats (Total: 12) EDU 2102
0201	Jessica McKechnie M 7:00pm - 9:45pm	Seats (Total: 12) EDU 2101

EDCP625 **Counseling the Chemically Dependent**

Credits: 3

Grading Method: Regular, Audit, Sat-Fail

Restriction: Must be in the School Counseling program; or permission of instructor.

Chemical dependency and its effects on the individual's personal, social, and work functioning. Counseling procedures for persons with drug and alcohol problems.

0101	Sylvia Huntley	Seats (Total: 10)
	W 4:15pm - 7:00pm	EDU 3236

EDCP630 **School-Based Behavioral Interventions**

(Perm req)

Credits: 3

Grading Method: Regular, Sat-Fail

Restriction: Permission of instructor; and must be in a major in EDUC-College of Education.

Behavior assessment and intervention techniques from behavioral, cognitive-behavioral, and ecological models. Planning, implementation, and evaluation of behavior change techniques.

0101	Antoinette Goldthrite	Seats (Total: 10)
	W 4:15pm - 7:00pm	ASY 3219

EDCP633 **Diagnostic Appraisal of Children I**

Credits: 3

Grading Method: Regular, Audit, Sat-Fail

Prerequisite: EDCP632.

Assessment of development, emotional and learning problems of children.

0101	Katie Burkhouse	Seats (Total: 10)
	W 4:15pm - 7:00pm	EDU 1107

EDCP635 **School Consultation I**

Credits: 3

Grading Method: Regular, Audit, Sat-Fail

Restriction: Must be in the School Counseling program; or must be in the School Psychology program; or permission of instructor.

Theory and practice of consultation services in the school setting. Understanding of school culture. Introduction to problem solving model of case consultation for assessment and remediation of learning and behavior problems in the classroom. Practicum experience.

0101	Colleen O'Neal Tu 9:00am - 11:45am	Seats (Total: 10) EDU 2102

EDCP651 **Group Counseling in Schools**

(Perm req)

Credits: 3 Grading Method: Regular, Audit, Sat-Fail

Prerequisite: EDCP616; and for school counseling and school psychology students only. Restriction: Permission of instructor.

Issues and techniques of group counseling in schools.

0101	Richard Shin Tu 4:15pm - 7:00pm	Seats (Total: 10) EDU 2101

EDCP680 **Basic Didactic Practicum in Counseling Psychology**

Credits: 3 Grading Method: Sat-Fail

Prerequisite: For Counseling Psychology majors only. Formerly: PSYC776.

In depth examination of counseling theories and techniques, and supervised experience in application of a range of counseling and therapy approaches.

0101	Pepper Phillips Tu 12:00pm - 3:00pm	Seats (Total: 8) SHM 1106A

EDCP686 **Counseling Psychology Didactic Practicum in Career Interventions**

Credits: 3 Grading Method: Sat-Fail

Prerequisite: For Counseling Psychology majors only. Formerly: EDCP777.

In depth examination of theorectical approaches and issues in career interventions; supervised experience in career counseling and assessment.

0101	Kelly Lee Th 12:00pm - 3:00pm	Seats (Total: 8) SHM 1106A

EDCP690 **Research in Counseling Psychology I**

Credits: 3 Grading Method: Regular, Sat-Fail

Prerequisite: For Counseling Psychology majors only. Cross-listed with PSYC690. Formerly: EDCP778.

Critical analysis of strategies, methodological, conceptual, and content trends.

0101	Dennis Kivlighan Th 1:00pm - 3:45pm	Seats (Total: 15) EDU 2102

EDCP693 **Assessment in Counseling Psychology ii**

Credits: 3 Grading Method: Regular, Sat-Fail

Prerequisite: For Counseling Psychology majors only. Formerly: EDCP789F.

Supervised experience in administration, scoring, and interpreting major psychodiagnostic instruments used by counseling psychologists, as well as writing integrative assessment reports. Emphasis on hypothesis testing approach to assessment and on the counseling interview as an assessment tool.

0101	Kelly Lee W 8:50am - 11:40am	Seats (Total: 20) JMZ 3122

EDCP738 **Practicum in Child Assessment**

Credits: 3 Grading Method: Regular, Audit, Sat-Fail

Administration of complete test batteries to children; supervision of initial interviews; test administration and scoring; interpretation and synthesis of test battery and interview material; the psychological report; verbal interpretation of test results; and recommendations. Taken initially with EDCP 633; repeated with EDCP 634 in the subsequent semester.

Class meets in 1102M Seneca Building.

0101	William Young Th 1:00pm - 4:00pm	Seats (Total: 4) Location: TBA

EDCP776 **Social Justice in Student Affairs and Higher Education**

Credits: 3 Grading Method: Regular, Audit, Sat-Fail

Prerequisite: EDCP771 or EDCP741; or permission of instructor. Restriction: Limited to college student personnel students only.

An exploration of differences, biases, assumptions, limitations, and challenge with diversity in the context of higher education and student affairs. Focusing on issues of inequities with social identity group membership and the systems of power, privilege, and oppression in society.

0101	Kimberly Griffin Th 1:00pm - 3:45pm	Seats (Total: 20) ARC 1127

EDCP788 Advanced Practicum

Credits: 1-6 Grading Method: Regular, Audit, Sat-Fail

Individual supervision in one of the following areas: (a) individual counseling, (b) group counseling, (c) consultation, or (d) administration.

5001	John Zacker Contact instructor or department for details.	Seats (Total: 5)
5101	Candace Moore Contact instructor or department for details.	Seats (Total: 2)
7001	Julie Park Contact instructor or department for details.	Seats (Total: 1)
7301	Kimberly Griffin Contact instructor or department for details.	Seats (Total: 5)

EDCP789 Advanced Topics in Counseling and Personnel Services

Credits: 1-6 Grading Method: Regular, Audit, Sat-Fail

5101	Candace Moore Contact instructor or department for details.	Seats (Total: 5)

EDCP789B Advanced Topics in Counseling and Personnel Services; Methods of Intervention

Credits: 3 Grading Method: Regular, Audit, Sat-Fail

0101	Cixin Wang M 9:45am - 12:30pm	Seats (Total: 10) EDU 2102

EDCP789N Advanced Topics in Counseling and Personnel Services; Therapeutic Approaches with Children

Credits: 3 Grading Method: Regular, Audit, Sat-Fail

0101	Colleen O'Neal Tu 1:00pm - 3:45pm	Seats (Total: 6) EDU 2101

EDCP797 **Capstone Course: Program Planning**

Credits: 3 Grading Method: Regular, Audit, Sat-Fail

Restriction: Must be in the School Counseling program. Credit only granted for: EDCP789T or EDCP797. Formerly: EDCP789T.

0101	Natasha Mitchell Tu 4:00pm - 7:00pm	Seats (Total: 10) EDU 2102

EDCP798 **Special Problems in Counseling and Personnel Services**

(Perm req)

Credits: 1-6 Grading Method: Regular, Audit, Sat-Fail

Master's AGS, or doctoral candidates who desire to pursue special research problems under the direction of their advisers may register for credit under this number.

Contact department for information to register for this course.

EDCP798D **Special Problems in Counseling and Personnel Services; Advanced Qualitative Research and Data Analysis**

Credits: 3 Grading Method: Regular, Audit, Sat-Fail

Master's AGS, or doctoral candidates who desire to pursue special research problems under the direction of their advisers may register for credit under this number.

Prerequisite: EDCP773 or other introductory qualitative methods course.

0101	Michelle Espino Tu 1:00pm - 3:45pm	Seats (Total: 20) EDU 2102

EDCP799 **Master's Thesis Research**

Credits: 1-6 Grading Method: Sat-Fail

Registration required to the extent of six hours for Master's thesis.

Contact department for information to register for this course.

EDCP870 **Professional Issues Seminar**

Credits: 3 Grading Method: Regular, Audit, Sat-Fail

Credit only granted for: EDCP656 or EDCP870. Formerly: EDCP656.

Examination of issues that bear on professional issues such as ethics, inter-professional relationships and research.

0101	Paul Gold Th 4:15pm - 7:00pm	Seats (Total: 15) EDU 2102

EDCP879 **Internship in School Counseling**

Credits: 5 Grading Method: Regular, Audit, Sat-Fail

Apprentice practice under professional supervision in an area of competence compatible with the student's professional goals. Credit not to be granted for experience accrued prior to registration. Open only to degree- and certificate-seeking graduate students.

0101	Jessica McKechnie W 7:15pm - 10:00pm Contact instructor or department for details.	Seats (Total: 10) Location: TBA

EDCP888 **Apprenticeship in Counseling and Personnel Services**

(Perm req)

Credits: 1-8 Grading Method: Regular, Audit, Sat-Fail

Apprentice practice under professional supervision in an area of competence compatible with the student's professional goals. Credit not to be granted for experience accrued prior to registration. Open only to degree- and certificate-seeking graduate students.

Contact department for information to register for this course.

EDCP888A **Apprenticeship in Counseling and Personnel Services; College Student Personnel**

Credits: 3 Grading Method: Regular, Audit, Sat-Fail

Apprentice practice under professional supervision in an area of competence compatible with the student's professional goals. Credit not to be granted for experience accrued prior to registration. Open only to degree- and certificate-seeking graduate students.

0101	Marsha Guenzler-Stevens Contact instructor or department for details.	Seats (Total: 10)

7001	Julie Park Contact instructor or department for details.	Seats (Total: 3)
7201	Michelle Espino Contact instructor or department for details.	Seats (Total: 10)

EDCP888C **Apprenticeship in Counseling and Personnel Services; School Psychology**

Credits: 1-8

Grading Method: Regular,
Audit, Sat-Fail

Apprentice practice under professional supervision in an area of competence compatible with the student's professional goals. Credit not to be granted for experience accrued prior to registration. Open only to degree- and certificate-seeking graduate students.

0101	Jill Jacobson W 1:00pm - 3:45pm	Seats (Total: 15) Location: TBA
0201	Hedwig Teglasi W 4:00pm - 7:00pm	Seats (Total: 15) ASY 3203
0401	Instructor: TBA Contact instructor or department for details.	Seats (Total: 15)
0501	Judith Kinney Contact instructor or department for details.	Seats (Total: 10)

EDCP888G **Apprenticeship in Counseling and Personnel Services**

(Perm req)

Credits: 3

Grading Method: Regular,
Audit, Sat-Fail

Apprentice practice under professional supervision in an area of competence compatible with the student's professional goals. Credit not to be granted for experience accrued prior to registration. Open only to degree- and certificate-seeking graduate students.

Contact department for information to register for this course.

EDCP889 **Internship in Counseling and Personnel Services; Internship in Counseling and Personnel Services**

Credits: 1-8

Grading Method: Regular,
Audit, Sat-Fail

Internship experiences at a professional level of competence in a particular role with appropriate supervision. Credit not to be granted for experience accrued prior to registration. Open only to students advanced to candidacy for doctoral degree.

Contact department for information to register for this course.

EDCP889I **Internship in Counseling and Personnel Services; Internship in School Psychology**

Credits: 1-8 Grading Method: Regular, Audit, Sat-Fail

Internship experiences at a professional level of competence in a particular role with appropriate supervision. Credit not to be granted for experience accrued prior to registration. Open only to students advanced to candidacy for doctoral degree.

5301	Jill Jacobson Tu 5:00pm - 7:00pm	Seats (Total: 6) Location: TBA

EDCP898 **Pre-Candidacy Research**

Credits: 1-8 Grading Method: Regular, Sat-Fail

Contact department for information to register for this course.

EDCP899 **Doctoral Dissertation Research**

(Perm req)

Credits: 6 Grading Method: Sat-Fail

Registration required to the extent of 12-18 hours for a Ph.D. Dissertation.

Contact department for information to register for this course.

EDHD Education, Human Development Spring 2020

EDHD201 **Learning How to Learn**

Credits: 3 Grading Method: Regular, Pass-Fail General Education: DSHS

Immerses students in the theoretical and empirical study of learning by engaging them in orchestrated experiences and activities drawn directly from the disciplinary research. Students achieve deep understanding of their own learning, as well as the means of enhancing that learning both in school and out-of-school contexts.

0101	Patricia Alexander MW 11:00am - 11:50am M 12:00pm - 12:50pm	Seats (Total: 25) ESJ 2204 EDU 2119	 Lab
0102	Patricia Alexander MW 11:00am - 11:50am W 12:00pm - 12:50pm	Seats (Total: 25) ESJ 2204 EDU 2119	 Lab

0103	Patricia Alexander MW 11:00am - 11:50am F 12:00pm - 12:50pm	Seats (Total: 25) ESJ 2204 EDU 2119	 Lab
0104	Patricia Alexander MW 11:00am - 11:50am M 1:00pm - 1:50pm	Seats (Total: 25) ESJ 2204 EDU 3315	 Lab
0105	Patricia Alexander MW 11:00am - 11:50am W 1:00pm - 1:50pm	Seats (Total: 25) ESJ 2204 EDU 3315	 Lab
0106	Patricia Alexander MW 11:00am - 11:50am F 1:00pm - 1:50pm	Seats (Total: 25) ESJ 2204 EDU 3315	 Lab

EDHD210 **Foundations of Early Childhood Education**

(Perm req)

Credits: 3 | Grading Method: Regular, Pass-Fail | CORE: HO | General Education: DSHS

Restriction: Permission of EDUC-Human Development and Quantitative Methodology department.

Students explore historical and current research in early childhood education, primary models of curriculum and pedagogy in the field, and the relationship between critical aspects of young children's development and the creation of inclusive learning opportunities for all children, including children at risk. The concept of developmentally appropriate practice and its application across different developmental levels and early childhood classrooms will be introduced and connected with discussion in EDHD220 and EDSP211. Students examine issues in developing and implementing high quality early childhood education experiences for young children with and without disabilities, including the influence of family, culture, and community, the needs of children at risk (e.g., poverty, immigrant status, English Language Learners), and the role of assessment in early learning.

0101	Renee Garraway Tu 4:15pm - 7:00pm	Seats (Total: 25) TWS 1313

EDHD220 **Exploring Early Childhood General and Special Education**

(Perm req)

Credits: 3 | Grading Method: Regular, Pass-Fail | General Education: DSSP

Restriction: Permission of EDUC-Human Development and Quantitative Methodology department.

Students who are considering a career in education will consider information about the teaching profession. Students reflect on their personal strengths, identify areas of growth, and examine their predisposition to work with young children with and without disabilities. They will discuss the nature of teaching, the moral and philosophic underpinnings that influenced their decision to enter into the teaching professions, as well as the roles and responsibilities of teachers and the characteristics and qualities for effective teachers (teaching styles and teacher's primary role in the classroom).

Students should allow an appropriate amount of travel time from the off-campus experience to your classes meeting on campus.

0101	Francine Marchese W 4:15pm - 6:15pm M 8:30am - 12:30pm	Seats (Total: 7) KEY 0121 Location: TBA	Lab
0102	Francine Marchese W 4:15pm - 6:15pm Tu 8:30am - 12:30pm	Seats (Total: 6) KEY 0121 Location: TBA	Lab
0104	Francine Marchese W 4:15pm - 6:15pm Th 8:30am - 12:30pm	Seats (Total: 6) KEY 0121 Location: TBA	Lab
0105	Francine Marchese W 4:15pm - 6:15pm F 8:30am - 12:30pm	Seats (Total: 6) KEY 0121 Location: TBA	Lab

EDHD221 **Aggression and Violence in Everyday Life: Can Violence Be Prevented?**

Credits: 3 | Grading Method: Regular, Pass-Fail | General Education: DSHS, SCIS

History of aggression and violence in the world and in the United States. Examines the extent to which various forms are prevalent today and scientifically supported prevention strategies. Methods of studying aggression are reviewed, as are theories and methods of preventing aggression and violence.

0101	Jennie Lee-Kim TuTh 9:30am - 10:45am	Seats (Total: 50) HJP 2242	
0201	Lauren Trakhman TuTh 2:00pm - 3:15pm	Seats (Total: 50) HJP 2242	

EDHD228 **Research Experiences in Human Development**

(Perm req)

Credits: 3

Grading Method: Regular, Pass-Fail

General Education: DSSP

Provides students with hands-on participation in faculty-supervised laboratory research activities in the Department of Human Development & Quantitative Methodology. Students will learn about the purpose of scientific research and engage in activities that advance their knowledge and skills with regard to its ethical practice.

Contact department for information to register for this course.

EDHD231 **Inside 21st Century Creativity: How Creative Ideas, Concepts, and Products are Generated**

Credits: 3

Grading Method: Regular, Pass-Fail

General Education: DSHS, SCIS

Mechanisms of the creative mind. Psychological, social, sociological, developmental, cultural, educational, genetic and neural based roots of creativity.

0101	Alexis Williams, Patricia Alexander, Kevin Dunbar TuTh 11:00am - 12:15pm	Seats (Total: 50) TWS 1310

EDHD306 **Research Methods in Human Development**

Credits: 3

Grading Method: Regular, Pass-Fail, Audit

General Education: FSAR

Addresses the scientific concepts and principles central to the study of human behavior and development. Students will learn about basic research methods in studying human behavior in developmental context and will participate in experiential activities, such as conducting observations and collecting self-report data. Major themes: goals of developmental research, fundamental research designs, types of measurement, elements of good scientific writing, and ethical issues in the study of human development.

0101	Benjamin Rickles MW 11:00am - 12:15pm	Seats (Total: 40) EDU 1121
0201	Yixun Li TuTh 2:00pm - 3:15pm	Seats (Total: 40) TYD 1118

EDHD319 **Selected Topics in Human Development**

Credits: 3

Grading Method: Regular, Pass-Fail, Audit

Selected topics in human development in relation to contemporary culture.

Contact department for information to register for this course.

EDHD320 **Human Development Through the Life Span**

Credits: 3 | Grading Method: Regular, Pass-Fail, Audit | General Education: DSHS

Central concepts related to parameters of human development, individual and social, which arise throughout the life span. Continuity and change within the developing individual.

0101	Laura Jimenez Parra Tu 9:30am - 10:45am Class time/details on ELMs *Restricted to students in the guaranteed Nursing pathway.*	Seats (Total: 40) EDU 1121 ONLINE
0201	Aimee Duncan TuTh 2:00pm - 3:15pm	Seats (Total: 38) ARC 1103
0301	Alexis Williams, Min Wang TuTh 2:00pm - 3:15pm	Seats (Total: 38) EDU 3315

EDHD386 **Experiential Learning**

(Perm req)

Credits: 3-6 | Grading Method: Regular, Pass-Fail

Restriction: Permission of EDUC-Human Development and Quantitative Methodology department; and junior standing or higher.

Contact department for information to register for this course.

EDHD402 **Social Development**

Credits: 3 | Grading Method: Regular, Pass-Fail

Recommended: EDHD411.

Social Development. Critical concepts and ideas of the study of child and adolescent social development. Focus on changes in interpersonal relationships, emotions, achievement-related behavior and competence, and functioning within the broader social context.

0101	Olga Walker Class time/details on ELMs	Seats (Total: 40) ONLINE

EDHD411 **Child Growth and Development**

Credits: 3 | Grading Method: Regular, Pass-Fail, Audit | General Education: DSHS

Theoretical approaches to and empirical studies of physical, psychological and social development from conception to puberty. Implications for home, school and community.

0101	Lucas Butler M 2:00pm - 3:15pm Class time/details on ELMs	Seats (Total: 40) SQH 1103 ONLINE
0201	Lucas Butler M 3:30pm - 4:45pm Class time/details on ELMs	Seats (Total: 40) SQH 1103 ONLINE

EDHD412 **Infant Development**

Credits: 3 | Grading Method: Regular, Pass-Fail, Audit | General Education: DSHS

Infant development across domains, including perceptual, motor, cognitive, language, social and emotional functioning from pre-natal through third year of life.

0101	Lauren Trakhman Th 9:30am - 10:45am Class time/details on ELMs	Seats (Total: 40) EDU 2119 ONLINE

EDHD413 **Adolescent Development**

Credits: 3 | Grading Method: Regular, Pass-Fail, Audit | General Education: DSHS

Adolescent development, including special problems encountered in contemporary culture. Observational component and individual case study.

0101	Aimee Duncan Th 12:30pm - 1:45pm Class time/details on ELMs *Section 0101 is restricted to 0804L, 0804P, 0831L, 0831P, 0834L, 0834P, 0840L, 0840P, 0841L, 0841P, 0842L, 0842P.*	Seats (Total: 40) ARC 1101 ONLINE

EDHD415 **Promoting the Social-Emotional Competence of Young Children in Inclusive Classrooms**

(Perm req)

Credits: 3 | Grading Method: Regular, Pass-Fail

Prerequisite: EDHD314 and EDHD425; and (EDHD419 or EDSP420). Corequisite: EDSP423, EDSP424, and EDHD431. Restriction: Must be in the Professional Early Childhood/Early Childhood Special Education program; and junior standing or higher; and minimum cumulative GPA of 2.75.

Teachers must have knowledge and skill regarding how to appropriately manage the classroom so that all children, those with and without disabilities, will be able to learn from their school experiences. Classroom management extends beyond responding to student misbehavior to include a comprehensive approach to addressing the social/emotional competence of typically and atypically developing children. The goal of this course is to prepare early childhood teachers who are able to sensitively, responsively, and effectively manage a classroom of young students who are typically developing and those who have disabilities. Includes Field Experience.

0101	D'Lisa Worthy	Seats (Total: 25)
	M 4:15pm - 6:15pm Contact instructor or department for details.	EDU 3315

EDHD420 **Cognitive Development and Learning**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Prerequisite: EDHD320, EDHD411, PSYC341, or PSYC355; or permission of EDUC-Human Development and Quantitative Methodology department.

Current developmental theories of cognitive processes such as language, memory, and intelligence and how differences in cognitive level (infancy through adolescence) mediate learning of educational subject matters.

0101	Richard Prather	Seats (Total: 38)
	TuTh 12:30pm - 1:45pm	EDU 3315

EDHD424 **Culture, School & Community: Contexts for Learning (PreK-3rd)**

(Perm req)

Credits: 3 Grading Method: Regular, Pass-Fail

Prerequisite: EDHD425 and EDHD314; and (EDHD419 or EDSP420). Corequisite: EDSP315, EDHD431, EDHD415, and EDSP423. Restriction: Must be in the Professional Early Childhood/Early Childhood Special Education program; and junior standing or higher; and minimum cumulative GPA of 2.75.

Explores the development of the young child (with and without disabilities, as well as those at environmental risk) in the context of the family and community, with emphasis on the impact of state, federal and school system policy on the child's world. Course will consider issues within the family, and the wider socio-cultural ecology that relate to the child's ability to develop and learn. In addition, students will develop strategies for respectful and culturally responses approaches to actively engage families in their children's development and learning. Includes Field Experience.

0101	Doireann Renzi W 10:00am - 12:00pm Contact instructor or department for details.	Seats (Total: 25) LEF 1201

EDHD425 **Language Development and Reading Acquisition**

Credits: 3 Grading Method: Regular, Pass-Fail

This course focuses on young children's language development and the relationship between language and reading acquisition. Students will learn: concepts central to language development; language achievements at different ages; concepts of emergent literacy; models of reading acquisition and skilled reading.

0101	Min Wang, Lauren Trakhman TuTh 11:00am - 12:15pm	Seats (Total: 40) EDU 2119

EDHD426 **Cognitive and Motivational Literacy Content**

(Perm req)

Credits: 3 Grading Method: Regular, Pass-Fail

Students preparing for secondary teaching will learn about the cognitive and motivational aspects of literacy and learning from text for the content areas of literature, science, history and mathematics. Different evidenced-based literacy approaches appropriate for content learning are presented. Characteristics of learning environments that enable students to engage productively with diverse texts, disciplinary tasks, and technological resources in content areas are identified.

Restricted to major codes 0831L, 0831P, 0833L, 0833P, 0843L, 0834P, 0840L, 0840P, 0841L, 0841P, 0842L, 0842P, 0843L, 0843P, 0844L, 0844P.

0101	Daphne Williams Tu 7:00pm - 9:45pm	Seats (Total: 38) EDU 3315

EDHD431 **Child Development and Learning, Three to Eight Years**

(Perm req)

Credits: 3 Grading Method: Regular, Pass-Fail

Prerequisite: Minimum grade of C- in EDHD314 and EDHD425; and 1 course with a minimum grade of C- from (EDHD419, EDSP420). Corequisite: EDSP423 and EDSP315; and TRACK I: Must be concurrently enrolled in EDSP430, EDSP433; or TRACK 2: Must be concurrently enrolled in EDHD415, EDHD424.

Provides a basic understanding of child development theory and research, as well as specific knowledge about the development of children during the early and middle childhood "stages," specifically from ages 3 years to 8 years. A major emphasis will be the application of theory and research from the field of educational psychology to an understanding of how young children learn and achieve academically. Because the course will address the developmental and academic functioning of children with and without disabilities, a particular focus will be on individualization.

0101	Elisa Klein	Seats (Total: 35)
	TuTh 2:00pm - 3:15pm	EDU 1121

EDHD432 Internship in EC/ECSE

Credits: 12 Grading Method: Sat-Fail

Prerequisite: EDHD323, EDHD322, EDSP417, EDHD441, EDHD442, EDHD443, EDHD444, and EDSP321. Corequisite: EDHD437. Restriction: Must be in Early Childhood and Early Childhood Special Education program; and senior standing or higher.

Interns spend five days per week in the classroom/home-based setting (under the mentorship of a certified teacher) where they gradually assume full responsibility for the planning, delivery and assessment of instruction or an intervention. Track I students will have an Infant/Toddler placement with special educator, Track II students will be in a Pre-K/K or Grade 1,2,3 classroom with general or special educator (must be opposite grade level and mentor from Phase I/fall of the senior year).

Students must pay a $750.00 lab fee.

0101	Judith Anderson	Seats (Total: 35)
	Contact instructor or department for details.	

EDHD436 Cognition and Motivation in Content Area Literacy for Middle-School Students

Credits: 3 Grading Method: Regular, Pass-Fail

Cognitive and motivational processes of literacy and learning from texts across subjects. Structured approaches to using reading, writing, and speaking for content learning based on approaches to knowledge, motivation, and strategies. Classroom contexts that enable middle-school students to engage with diverse texts and Internet resources are provided

0101	Renae McPherson	Seats (Total: 30)
	Th 4:15pm - 7:00pm	EDU 3315
	Restricted to 0804L and 0804P major codes.	

EDHD437 EC/ECSE Teachers as Researchers and Reflective Practitioners

(Perm req)

Credits: 3

Grading Method: Regular, Pass-Fail

Prerequisite: Minimum grade of C- in EDHD322, EDHD323, EDSP321, EDSP417, EDHD441, EDHD442, EDHD443, and EDHD444. Corequisite: EDHD432.

Students use action research to improve instructional delivery or familial interactions in an effort to enhance the overall educational experiences/outcomes of children in classrooms or home-based contexts. Students will design and implement an action research project in an effort to meet a goal articulated in an applicable Individualized Education Plan (IEP) or Individualized Family Service Plan (IFSP) or School Improvement Plan (SIP) as the basis of their project.

0101	Judith Anderson Th 4:15pm - 7:00pm	Seats (Total: 35) EDU 0220

EDHD460 **Educational Psychology**

Credits: 3

Grading Method: Regular, Pass-Fail, Audit

General Education: DSHS

Prerequisite: PSYC100; or permission of EDUC-Human Development and Quantitative Methodology department.

Application of psychology to learning processes and theories. Individual differences, measurement, motivation, emotions, intelligence, attitudes, problem solving, thinking and communicating in educational settings.

0101	Anisha Singh TuTh 2:00pm - 3:15pm	Seats (Total: 40) ASY 2309

EDHD489 **Field Experiences in Education**

(Perm req)

Credits: 1-4

Grading Method: Regular, Pass-Fail, Audit

Planned field experience in education-related activities. Credit not to be granted for experiences accrued prior to registration.

Contact department for information to register for this course.

EDHD498 **Special Problems in Education**

(Perm req)

Credits: 1-3

Grading Method: Regular, Pass-Fail, Audit

Available only to students who have definite plans for individual study of approved problems.

Contact department for information to register for this course.

EDHD498G **Special Problems in Education; Cross-cultural Approaches to Child Development and Poverty in the U.S. and Chile**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Available only to students who have definite plans for individual study of approved problems.

This course will help students gain a cross cultural understanding of child development and poverty in different contexts (U.S. and Chile). Through the use of technology, UMD students will interact directly with their peers in Chile.

0101	Natasha Cabrera W 2:00pm - 5:00pm	Seats (Total: 20) HJP 3120

EDHD498Q **Special Problems in Education; Child and Adolescent Aggression**

(Perm req)

Credits: 3 Grading Method: Regular, Pass-Fail

Available only to students who have definite plans for individual study of approved problems.

0101	Kenneth Rubin TBA	Seats (Total: 15) EDU 1108

EDHD629 **Seminar for the Center for Children, Relationships, and Culture**

Credits: 1 Grading Method: Regular, Audit, Sat-Fail

A seminar and colloquia series featuring speakers from the department, the college, the university, and other universities and institutions from across the world that aims to cover issues pertaining to contemporary theory and research in human development.

0101	Natasha Cabrera W 12:20pm - 2:45pm	Seats (Total: 25) EDU 1121

EDHD635 **Adolescents at Risk**

Credits: 3 Grading Method: Regular, Audit, Sat-Fail

Recommended: EDHD600. Credit only granted for: EDHD635 or EDHD779L. Formerly: EDHD779L.

Study of current research on risky behaviors that impact adolescent student learning and achievement particular in underserved populations. General diversity issues and topics specific issues that put adolescents at risk for academic failure and other negative trajectories will be explored.

Contact department for information to register for this course.

EDHD718 **Apprenticeship in College Teaching**

(Perm req)

Credits: 1

Grading Method: Regular, Sat-Fail

For graduate students teaching autonomously for the first, second, or third tiem at the University of Maryland, College Park; not intended for teaching assistants. This course provides graduate student teachers with a set of structured experiences that foster professional growth and development in the role of college instructor. Includes seminars on the scholarship of college teaching and principles of optimal college classroom environments, peer and faculty in-class observations of teaching, and guided reflective analysis of experience in the classroom.

0101	Jennie Lee-Kim	Seats (Total: 10)
	F 1:00pm - 3:30pm	EDU 3236

EDHD751 **Child Development and Poverty**

Credits: 3

Grading Method: Regular, Audit, Sat-Fail

Prerequisite: EDHD720; or permission of EDUC-Human Development and Quantitative Methodology department.

This course examines the theoretical, methodological, and empirical literature on the effects of poverty on children's development from a multidisciplinary perspective. It includes basic concepts in methodology, measurement design, and issues related to connecting basic research on poverty and children to policy and program interventions.

Contact department for information to register for this course.

EDHD760 **Advanced Educational Psychology**

Credits: 3

Grading Method: Regular, Sat-Fail

Prerequisite: Prior course in educational psychology, learning, or cognition; or permission of EDUC-Human Development and Quantitative Methodology department.

Appplication of psychology to learning processes and theories. Individual differences, measurement, motivation, and intelligence.

0101	Patricia Alexander	Seats (Total: 20)
	W 4:15pm - 7:00pm	EDU 3233

EDHD775 **Human Development and Neuroscience**

(Perm req)

Credits: 3

Grading Method: Regular, Sat-Fail

Prerequisite: EDHD601; or permission of EDUC-Human Development and Quantitative Methodology department.

Course focuses on the biological bases of human behavior including physiological processes which have an impact on human development.

0101	Kevin Dunbar	Seats (Total: 20)
	Tu 2:00pm - 4:45pm	EDU 3236

EDHD780 **Research Methods in Human Development**

Credits: 3 Grading Method: Regular, Audit, Sat-Fail

Prerequisite: EDMS651; or permission of EDUC-Human Development and Quantitative Methodology department.

Research methodology for studying human development: research design, hypothesis formulation, instrument development, methodological and statistical approaches, survey of methodologies.

0101	Richard Prather	Seats (Total: 20)
	Th 9:30am - 12:15pm	EDU 3233

EDHD789 **Internship in Human Development**

(Perm req)

Credits: 3-8 Grading Method: Regular, Audit, Sat-Fail

Internship experience in one or more human service agencies in the community.

Contact department for information to register for this course.

EDHD798 **Laboratory in Human Development**

(Perm req)

Credits: 1-6 Grading Method: Regular, Audit, Sat-Fail

Independent research supervised by an instructor in a research setting.

Limited to human development majors.

Contact department for information to register for this course.

EDHD799 **Master's Thesis Research**

(Perm req)

Credits: 1-6 Grading Method: Sat-Fail

Registration required to the extent of six hours for master's thesis.

Limited to human development majors.

Contact department for information to register for this course.

EDHD835 **The Development of Achievement Motivation**

Credits: 3 Grading Method: Regular, Audit, Sat-Fail

Prerequisite: EDHD830 or EDHD721; or permission of EDUC-Human Development and Quantitative Methodology department.

Development of achievement motivation and how it relates to academic achievement during the elementary and secondary school years. Expectancy-value theory, attribution theory, self-efficacy theory, socialization of achievement motivation.

0101	Doug Lombardi	Seats (Total: 20)
	M 4:15pm - 7:00pm	HBK 0125

EDHD850 **Social Cognition and Moral Reasoning**

Credits: 3 Grading Method: Regular, Audit, Sat-Fail

Theory and research on social-cognition development and moral development, from infancy to adolescence will be covered.

0101	Melanie Killen	Seats (Total: 20)
	Th 1:00pm - 3:45pm	EDU 2101

EDHD888 **Apprenticeship in Human Development Research**

(Perm req)

Credits: 1-8 Grading Method: Regular, Audit, Sat-Fail

Apprenticeship in Human Development research.

Contact department for information to register for this course.

EDHD889 **Practicum in Human Development**

(Perm req)

Credits: 3-8 Grading Method: Regular, Audit, Sat-Fail

Field experience in applied human development at a professional level of competence in a particular role with appropriate supervision.

Contact department for information to register for this course.

EDHD898 **Pre-Candidacy Research**

(Perm req)

Credits: 1-8 Grading Method: Regular, Sat-Fail

Contact department for information to register for this course.

EDHD899 **Doctoral Dissertation Research**

(Perm req)

Credits: 6 Grading Method: Sat-Fail

Registration required to 12-18 hours for a Ph.D. dissertation.

Limited to human development majors.

Contact department for information to register for this course.

EDHI Education Leadership, Higher Ed and International Ed Spring 2020

EDHI338N **Teaching and Learning about Cultural Diversity through Intergroup Dialogue; Race, Gender, or Sexual Identity**

Credits: 1 Grading Method: Regular, Pass-Fail, Audit General Education: DVCC

Engages students, from one or more cultural identity groups, in facilitated dialogue about the similarities and differences of experience that exist within a group and/or between and across groups. The goal of intergroup dialogue is for students to develop comfort with, and skill for, discourse on difficult topics toward the end of fostering positive, meaningful, and sustained cross-group relationships. Whereas in debate, students learn to listen to gain advantage, in intergroup dialogue, students learn to listen to gain understanding. In so doing, students develop increased multicultural interaction facility, heightened intergroup awareness and sensitivity, and greater commitment to civic engagement.

0201	Louisa Nkrumah, Thomas Le, Jazmin Pichardo, Sika Wheeler, Collin Vernay, Laura Bohorquez Garcia, Courtney Riley, Jesus Ramos Miramontes, Fernando Lopez **Meets March 30, 2020 - May 12, 2020** M 6:30pm - 8:30pm	Seats (Total: 42) Location: TBA

EDHI338P **Teaching and Learning about Cultural Diversity through Intergroup Dialogue; Special Topic: Immigrant Identity and Experience**

(Perm req)

Credits: 1 Grading Method: Regular, Pass-Fail, Audit General Education: DVCC

Engages students, from one or more cultural identity groups, in facilitated dialogue about the similarities and differences of experience that exist within a group and/or between and across groups. The goal of intergroup dialogue is for students to develop comfort with, and skill for, discourse on difficult topics toward the end of fostering positive, meaningful, and sustained cross-group relationships. Whereas in debate, students learn to listen to gain advantage, in intergroup dialogue, students learn to listen to gain understanding. In so doing, students develop increased multicultural interaction facility, heightened intergroup awareness and sensitivity, and greater commitment to civic engagement.

0101	Laura Bohorquez Garcia, Elisa Salgado, Jazmin Pichardo **Meets January 27, 2020 - March 9, 2020** M 4:00pm - 6:00pm	Seats (Total: 14) WDS 0104

EDHI338T **Teaching and Learning about Cultural Diversity through Intergroup Dialogue; Race, Gender, or Citizenship**

Credits: 1 | Grading Method: Regular, Pass-Fail, Audit | General Education: DVCC

Engages students, from one or more cultural identity groups, in facilitated dialogue about the similarities and differences of experience that exist within a group and/or between and across groups. The goal of intergroup dialogue is for students to develop comfort with, and skill for, discourse on difficult topics toward the end of fostering positive, meaningful, and sustained cross-group relationships. Whereas in debate, students learn to listen to gain advantage, in intergroup dialogue, students learn to listen to gain understanding. In so doing, students develop increased multicultural interaction facility, heightened intergroup awareness and sensitivity, and greater commitment to civic engagement.

0101	Jazmin Pichardo, Ashley Mena, Erin McClure, Benjamin Beltran, Kristina Mascarenas, Lauren Healy, Michelle Strange, Judith Martinez **Meets January 27, 2020 - March 9, 2020** M 6:30pm - 8:30pm	Seats (Total: 42) Location: TBA

EDHI338U **Teaching and Learning about Cultural Diversity through Intergroup Dialogue; US Identity in a Global Context**

Credits: 1 | Grading Method: Regular, Pass-Fail, Audit | General Education: DVCC

Engages students, from one or more cultural identity groups, in facilitated dialogue about the similarities and differences of experience that exist within a group and/or between and across groups. The goal of intergroup dialogue is for students to develop comfort with, and skill for, discourse on difficult topics toward the end of fostering positive, meaningful, and sustained cross-group relationships. Whereas in debate, students learn to listen to gain advantage, in intergroup dialogue, students learn to listen to gain understanding. In so doing, students develop increased multicultural interaction facility, heightened intergroup awareness and sensitivity, and greater commitment to civic engagement.

Contact department for information to register for this course.

EDHI338X **Teaching and Learning about Cultural Diversity through Intergroup Dialogue; Race, Socioeconomic Status, or (Dis)Ability**

Credits: 1 | Grading Method: Regular, Pass-Fail, Audit | General Education: DVCC

Engages students, from one or more cultural identity groups, in facilitated dialogue about the similarities and differences of experience that exist within a group and/or between and across groups. The goal of intergroup dialogue is for students to develop comfort with, and skill for, discourse on difficult topics toward the end of fostering positive, meaningful, and sustained cross-group relationships. Whereas in debate, students learn to listen to gain advantage, in intergroup dialogue, students learn to listen to gain understanding. In so doing, students develop increased multicultural interaction facility, heightened intergroup awareness and sensitivity, and greater commitment to civic engagement.

0201	Jazmin Pichardo, Ron Padron, Laura Widener, Tiffany Wright, Tynesha McCullers, Xanh Tran, Nana Brantuo **Meets March 30, 2020 - May 12, 2020** Tu 6:00pm - 8:00pm	Seats (Total: 42) Location: TBA

EDHI338Z **Teaching and Learning about Cultural Diversity through Intergroup Dialogue; Greek Leadership Council Intergroup Dialogue**

(Perm req)

Credits: 3 | Grading Method: Regular, Pass-Fail, Audit | General Education: DVCC

Engages students, from one or more cultural identity groups, in facilitated dialogue about the similarities and differences of experience that exist within a group and/or between and across groups. The goal of intergroup dialogue is for students to develop comfort with, and skill for, discourse on difficult topics toward the end of fostering positive, meaningful, and sustained cross-group relationships. Whereas in debate, students learn to listen to gain advantage, in intergroup dialogue, students learn to listen to gain understanding. In so doing, students develop increased multicultural interaction facility, heightened intergroup awareness and sensitivity, and greater commitment to civic engagement.

Restriction: Student must be a member of a Department of Fraternity and Sorority Life recognized fraternity or sorority.

0101	Chase Oatis, Jazmin Pichardo W 4:00pm - 6:00pm Contact instructor or department for details.	Seats (Total: 16) JMZ 1226

EDHI489 **Field Experiences in Education**

(Perm req)

Credits: 1-4 Grading Method: Regular, Pass-Fail, Audit

Planned field experience in education-related activities. Credit not to be granted for experiences accrued prior to registration.

Contact department for information to register for this course.

EDHI498 **Special Problems in Education**

(Perm req)

Credits: 1-3 Grading Method: Regular, Pass-Fail, Audit

Available only to students who have definite plans for individual study of approved problems.

Contact department for information to register for this course.

EDHI607 **Culture and Education in a Global Context**

Credits: 3 Grading Method: Regular, Audit, Sat-Fail

Credit only granted for: EDHI607, EDPL607, or EDPS607. Formerly: EDPL607.

Examines cultural theories and analyzes cultural influences in education. Course materials and discussion critically analyze cultural transmission and schooling practices. Also examined are politics of culture, multiculturalism, global cultural clashes, and educators as critical culture workers.

0101	Jing Lin W 4:15pm - 7:00pm	Seats (Total: 20) EDU 1315

EDHI653 **Organization and Administration of Higher Education**

Credits: 3 Grading Method: Regular, Sat-Fail

Credit only granted for: EDHI653, EDPL653, or EDPS653. Formerly: EDPL653.

Basic concepts and terminology related to organizational behavior and institutional governance structures. The governance and organization of higher education in the United States.

0101	Alberto Cabrera Casillas	Seats (Total: 20)
	W 4:15pm - 7:00pm	JMZ 1120

EDHI664 **The College Experience**

Credits: 3 Grading Method: Regular, Audit, Sat-Fail

Credit only granted for: EDHI664, EDPL664, or EDPS664. Formerly: EDPL664.

Designed to provide students with an overview of the research and scholarship on two of the major stakeholders in higher education -- students and faculty. Examines the educational experiences of college students in and out of the classroom in higher education in the United States by focusing on what students learn and the different collegiate experiences that influence their learning.

0101	Alberto Cabrera Casillas	Seats (Total: 15)
	M 4:15pm - 7:00pm	EDU 3233

EDHI679 **Master's Seminar**

Credits: 3 Grading Method: Regular, Audit, Sat-Fail

Directed study for master's degree students writing seminar papers.

Contact department for information to register for this course.

EDHI684 **Alternative Education, Alternative Development**

Credits: 3 Grading Method: Regular, Audit, Sat-Fail

Recommended: EDHI606. Credit only granted for: EDHI684 or EDHI788D. Formerly: EDHI788D.

A critical examination of the political economy of education and international development policies and practices. Focus is on the implications of these critiques for alternative education and development policies and practices.

0101	Steven Klees	Seats (Total: 20)
	Tu 4:15pm - 7:00pm	EDU 3233

EDHI689 **Practicum In Educational Administration and Supervision**

(Perm req)

Credits: 1-3 Grading Method: Sat-Fail

Promotes skill development in managerial, leadership and supervisory areas. Practicum is based on results of diagnostic instruments and an individual professional development plan.

Contact department for information to register for this course.

EDHI750 **International Higher Education**

Credits: 3 Grading Method: Regular, Audit, Sat-Fail

Credit only granted for: EDHI750, EDPL750, or EDPS750. Formerly: EDPL750.

Comparison of higher education systems in several countries, and of the problems and issues in higher education faced by these countries.

0101	Taylor Woodman	Seats (Total: 15)
	M 4:15pm - 7:00pm	EDU 1315

EDHI754 **Higher Education Finance**

Credits: 3 Grading Method: Regular, Audit, Sat-Fail

Credit only granted for: EDHI754, EDPL754, or EDPS754. Formerly: EDPL754.

Economic perspectives on higher education. Ways of financing higher education and current finance issues. Higher education budget concepts and processes.

0101	Marvin Titus	Seats (Total: 15)
	W 7:10pm - 9:55pm	EDU 3233

EDHI788D **Special Topics in Education Policy and Administration; Embargoed Dialogues - Critical Studies in U.S. and Cuban Education**

Credits: 3 Grading Method: Regular, Audit, Sat-Fail

Special and intensive treatment of current topics and issues in education policy and administration.

Contact department for information to register for this course.

EDHI788W **Special Topics in Education Policy and Administration; Teacher Education and Teacher's Work: An Internat'l Perspec.**

Credits: 3 Grading Method: Regular, Audit, Sat-Fail

Special and intensive treatment of current topics and issues in education policy and administration.

0101	Mark Ginsburg	Seats (Total: 10)
	Tu 7:00pm - 9:45pm	EDU 2102

EDHI788X **Special Topics in Education Policy and Administration; International Investigations in Cuban Education**

Credits: 3 Grading Method: Regular, Audit, Sat-Fail

Special and intensive treatment of current topics and issues in education policy and administration.

Contact department for information to register for this course.

EDHI789 **Doctoral Practicum in Administration and Supervision**

Credits: 1-3 Grading Method: Sat-Fail

Experiential activities designed to enhance student skills. Based on Individual Professional Development Plan for each student.

Contact department for information to register for this course.

EDHI798 **Special Problems in Education**

(Perm req)

Credits: 1-6 Grading Method: Regular, Audit, Sat-Fail

Master's, AGS, or doctoral candidates who desire to pursue special research problems under the direction of their advisors may register for credit under this number.

Contact department for information to register for this course.

EDHI798B **Special Problems in Education; International Investigations in Cuban Education**

Credits: 3 Grading Method: Regular, Audit, Sat-Fail

Master's, AGS, or doctoral candidates who desire to pursue special research problems under the direction of their advisors may register for credit under this number.

Contact department for information to register for this course.

EDHI799 **Master's Thesis Research**

Credits: 1-6 Grading Method: Sat-Fail

Contact department for information to register for this course.

EDHI853 **Leadership in Higher Education**

Credits: 3 Grading Method: Regular, Audit, Sat-Fail

Prerequisite: EDHI653. Credit only granted for: EDHI853, EDPL853, or EDPS853. Formerly: EDPL853.

Theories of organizational leadership applied to institutions of higher education.

0101	Sharon Fries-Britt Th 4:15pm - 7:00pm	Seats (Total: 15) TWS 1321

EDHI888 **Apprenticeship in Education**

Credits: 1-8 Grading Method: Regular, Audit, Sat-Fail

Apprentice practice under professional supervision in an area of competence compatible with the student's professional goals. Credit not to be granted for experience accrued prior to registration. Open only to degree- and certificate-seeking graduate students.

0101	Sharon Fries-Britt Contact instructor or department for details.	Seats (Total: 5)
2701	Marvin Titus Contact instructor or department for details.	Seats (Total: 5)
3501	Alberto Cabrera Casillas Contact instructor or department for details.	Seats (Total: 5)

EDHI889 **Internship in Education**

(Perm req)

Credits: 3-8 Grading Method: Regular, Audit, Sat-Fail

Internship experiences at a professional level of competence in a particular role with appropriate supervision. Credit not to be granted for experience accrued prior to registration. Open only to students advanced to candidacy for doctoral degree.

Contact department for information to register for this course.

EDHI895 **Research Critique Seminar**

(Perm req)

Credits: 3 Grading Method: Regular, Audit, Sat-Fail

Credit only granted for: EDHI895, EDPL895, or EDPS895. Formerly: EDPL895.

Critiques of research designs in preparation for the doctoral dissertation.

Contact department for information to register for this course.

EDHI898 **Pre-Candidacy Research**

Credits: 1-8 Grading Method: Regular, Sat-Fail

Contact department for information to register for this course.

EDHI899 **Doctoral Dissertation Research**

(Perm req)

Credits: 6 Grading Method: Sat-Fail

Registration required to the extent of 6-9 hours for an Ed.D. Project and 12-18 hours for a Ph.D. Dissertation.

Contact department for information to register for this course.

EDMS Measurement, Statistics, and Evaluation Spring 2020

EDMS451 **Introduction to Educational Statistics**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit General Education: FSAR

Restriction: Sophomore standing or higher. Credit only granted for: BIOM301, BMGT230, CCJS200, ECON230, ECON321, EDMS451, GEOG306, GEOL351, GVPT422, INST314, JOUR405, PSYC200 or SOCY201. (These courses do not necessarily meet the same major requirements-check with your advisor to see which of these courses will count for your major).

Introduction to statistical reasoning; location and dispersion measures; computer applications; regression and correlation; formation of hypotheses tests; t-test; one-way analysis of variance; analysis of contingency tables.

0101	Charles Fisk TuTh 2:00pm - 3:15pm	Seats (Total: 30) EDU 2119
0201	Erin Murphy TuTh 12:30pm - 1:45pm	Seats (Total: 30) EDU 1121
0301	Amanda Burkholder MW 11:00am - 12:15pm	Seats (Total: 30) EDU 1107

EDMS626 **Instrumentation**

Credits: 3 Grading Method: Regular, Audit, Sat-Fail

Prerequisite: EDMS623.

Theory, development, and applications of various affective, cognitive, or behavioral measurement instruments and procedures, including questionnaire and test items, observational protocols, and cutting-edge innovative game and scenario-based assessments.

0101	Hong Jiao	Seats (Total: 20)
	Th 4:15pm - 7:00pm	EDU 1121

EDMS645 **Quantitative Research Methods I**

Credits: 3 Grading Method: Regular, Audit, Sat-Fail

Research design and statistical applications in educational research: data representation; descriptive statistics; estimation and hypothesis testing. Application of statistical computer packages is emphasized.

0101	Megan Masters	Seats (Total: 30)
	M 4:15pm - 7:00pm	BPS 1238

EDMS646 **General Linear Models I**

Credits: 3 Grading Method: Regular, Audit, Sat-Fail

Prerequisite: EDMS645; or an equivalent introductory statistics course.

A first post-introductory inferential statistics course, with emphasis on analysis of variance procedures and designs from within the general linear modeling framework. Assignments include student analysis of education and related data; application of statistical software packages is emphasized.

0101	Yang Liu	Seats (Total: 30)
	Tu 4:15pm - 7:00pm	EDU 3315

EDMS647 **Causal Inference and Evaluation Methods**

Credits: 3 Grading Method: Regular, Audit, Sat-Fail

Prerequisite: Must have completed or be concurrently enrolled in EDMS651.

Counterfactual (potential outcomes) framework for causal inference, design/analysis strategies for confounder control, and specific best-practice applications to the evaluation of programs.

0101	Peter Steiner	Seats (Total: 30)
	Tu 4:15pm - 7:00pm	JMZ 0208

EDMS651 **General Linear Models II**

Credits: 3

Grading Method: Regular, Audit, Sat-Fail

Prerequisite: EDMS646; or students who have taken courses with comparable content may contact the department.

Multiple regression and correlation analysis; trend analysis; hierarchical and stepwise procedures; logistic regression; software for regression analysis.

0101	Jeffrey Harring	Seats (Total: 30)
	M 4:15pm - 7:00pm	EDU 1107

EDMS722 **Structural Modeling**

Credits: 3

Grading Method: Regular, Audit, Sat-Fail

Prerequisite: EDMS657.

Statistical theory and methods of estimation used in structural modeling; computer program applications; multisample models; mean structture models; structural models with multilevel data (e.g., sampling weights, growth models, multilevel latent variable models).

0101	Gregory Hancock	Seats (Total: 30)
	Tu 4:15pm - 7:00pm	TYD 2111

EDMS724 **Modern Measurement Theory**

(Perm req)

Credits: 3

Grading Method: Regular, Audit, Sat-Fail

Prerequisite: EDMS623 and EDMS651.

Theoretical formulations of measurement from a latent trait theory perspective.

0101	Yang Liu	Seats (Total: 20)
	W 4:15pm - 7:00pm	EDU 2101
	For Majors only.	

EDMS738T **Seminar in Special Problems in Measurement; Assessment Engineering**

Credits: 3

Grading Method: Regular, Audit, Sat-Fail

An opportunity for students with special interests to focus in depth on contemporary topics in measurement. Topics to be announced, but will typically be related to applied and theoretical measurement.

Prerequisite: EDMS 623 This is a graduate-level seminar course in Assessment Engineering (AE). AE is a multidisciplinary field integrating theories and methods from education, business, psychometrics, statistics, and computer science in order to address current issues of assessment as well as to devise innovative assessment products and services. Emphasis will be placed on modern/digital transformations of assessment, incorporating technologies (e.g., Machine Learning) with psychometric advancements (e.g., Automatic Item Generation, Computer Adaptive Formative Assessment, and Learning Analytics Platform). EDMS 623 is a prerequisite; experience with modern measurement theory (e.g., EDMS 724) is helpful, but not required.

0101	Jaehwa Choi	Seats (Total: 20)
	Th 4:15pm - 7:00pm	JMZ 0120

EDMS787 **Bayesian Inference and Analysis**

(Perm req)

Credits: 3 Grading Method: Regular, Audit, Sat-Fail

Prerequisite: EDMS651. Credit only granted for: EDMS769B or EDMS787. Formerly: EDMS769B.

Models and model fitting methods commonly used in Bayesian Inference, such as Markov Chain Monte Carlo methods (e.g., Gibbs, Metropolis Sampling), with applications within and beyond the social and behavioral sciences. Analytical and philosophical differences between Frequentist and Bayesian statistics will also be highlighted.

0101	Tracy Sweet	Seats (Total: 20)
	M 4:15pm - 7:00pm	EDU 2101

EDMS798 **Special Problems in Education**

(Perm req)

Credits: 1-6 Grading Method: Regular, Audit, Sat-Fail

Master's, EDMS majors, or doctoral candidates who desire to pursue special research problems under the direction of their advisors may register for credit under this number.

Prerequisite: permission of department.

Contact department for information to register for this course.

EDMS799 **Master's Thesis Research**

Credits: 1-6 Grading Method: Sat-Fail

Registration required to the extent of 6 credits.

Contact department for information to register for this course.

EDMS889 **Internship in Measurement and Statistics**

Credits: 3-8 Grading Method: Regular, Audit, Sat-Fail

Provides internship experiences at a professional level of competence in a particular role with appropriate supervision. Credit not to be granted for experience accrued prior to registration. Open only to students advanced to candidacy for doctoral degree.

Contact department for information to register for this course.

EDMS898 **Pre-Candidacy Research**

Credits: 1-8 Grading Method: Regular, Sat-Fail

Contact department for information to register for this course.

EDMS899 **Doctoral Dissertation Research**

(Perm req)

Credits: 6 Grading Method: Sat-Fail

Registration required to the extent of 12 credits.

Contact department for information to register for this course.

EDSP Education, Special Spring 2020

EDSP210 **Introduction to Special Education**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit General Education: DVUP

Restriction: Sophomore standing or lower. Credit only granted for: EDSP210 or EDSP470.

Characteristics and needs of individuals receiving special education and related services. Current issues and practices in special education.

0101	Yewon Lee MW 10:00am - 11:15am	Seats (Total: 10) ARC 1101
0201	Yewon Lee MW 12:30pm - 1:45pm	Seats (Total: 10) VMH 1207

EDSP211 **Introduction to Special Education**

(Perm req)

Credits: 3 Grading Method: Regular, Pass-Fail, Audit General Education: DVUP

Restriction: Sophomore standing or lower; and permission of EDUC-Counseling, Higher Education and Special Education department. Credit only granted for: EDSP210 or EDSP470.

An introduction to the field of special education. Students examine historical foundations, including legislation; review components necessary for effective service delivery; and develop an understanding of the role of collaboration and consultation with parents, school personnel and other professionals. In addition, students are introduced to the nature and characteristics of various disabilities and review current issues in the field including overrepresentation of minority students in special education, inclusion, and federal and state assessment mandates. Current topics are addressed including evidence-based practices, universal design for learning, and individualization and differentiation of instruction..

0101	Joan Lieber TuTh 2:00pm - 3:15pm	Seats (Total: 25) EDU 1315

EDSP220 **Disability in Community: Access, Accommodation, and Adaptation**

Credits: 3 | Grading Method: Regular, Pass-Fail | General Education: DSSP, DVCC

Examines the concept of disability in a variety of community settings. Drawing on classic and contemporary readings in psychology, sociology and special education, the course will couple conceptual and historical understanding of disability with first-hand service-learning experiences in the community. Students will develop a plan in several phases that encompasses principles of Universal Design for Living/Learning (UDL) to study and participate in community-based activities.

0101	Carolyn Fink Th 2:00pm - 3:30pm Class time/details on ELMs	Seats (Total: 24) EDU 3233 ONLINE

EDSP289I **Disability: From Stigma and Sideshow to Mainstream and Main Street**

Credits: 3 | Grading Method: Regular, Pass-Fail, Audit | CORE: SB, D | General Education: DSHS, DVUP, SCIS

Disability: From Stigma and Sideshow to Mainstream and Main Street, explores the cultural, historical, educational, and medical roots of difference among human beings and examines the impact of cultural and technological changes on individuals traditionally identified as disabled. The course is designed to develop a broad understanding of the concept of "disability" and the emerging technologies that shape contemporary understanding of this phenomenon and the lives of those considered disabled.

0101	Peter Leone TuTh 9:30am - 10:45am	Seats (Total: 60) TWS 1310

0201	Yewon Lee TuTh 12:30pm - 1:45pm	Seats (Total: 60) TWS 1310

EDSP315 **Inclusive Instruction: Reading Methods II**

Credits: 3 Grading Method: Regular, Pass-Fail

Prerequisite: EDHD314 and EDHD425; and (EDHD419 or EDSP420). Corequisite: EDSP423 and EDHD431; and track 1: Must be concurrently enrolled in EDSP430 and EDSP433; OR Track 2: Must be concurrently enrolled in EDHD415 and EDHD424.

Focus on current research and methods of teaching reading in the primary grades. Examination of development of a balanced literacy program of children of all reading levels in inclusive early childhood classrooms. Students will learn to select and use a variety of evidence-based reading strategies and assessment tools for reading and writing instruction. Includes field experiences.

0101	Jennifer McCatharn M 1:00pm - 3:00pm Contact instructor or department for details.	Seats (Total: 35) EDU 2119

EDSP376 **Fundamentals of Sign Language**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit General Education: DVCC

Receptive and expressive skills in American Sign Language. Examination of the causes of deafness, characteristics of deaf education, and aspects of the culture of the deaf community.

0101	Michael Dunham MW 6:15pm - 7:30pm	Seats (Total: 20) KNI 1105
0201	Elizabeth Martinez TuTh 5:00pm - 6:15pm	Seats (Total: 15) JMZ 1124

EDSP403 **Instruction of Students with Physical Disabilities**

Credits: 3 Grading Method: Regular, Pass-Fail

Prerequisite: EDSP400 or EDSP602. Jointly offered with EDSP603. Credit only granted for: EDSP403 or EDSP603.

Assessment, curriculum, and instruction for students with physical disabilities. Focus on etiology, environmental and learning adaptations, and assistive technology.

0101	Frances Kohl Tu 1:15pm - 4:00pm	Seats (Total: 35) EDU 1107

EDSP410 **Instruction of Students with Severe Disabilities II**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Restriction: Must be in Special Education program. Jointly offered with EDSP614. Credit only granted for: EDSP410 or EDSP614.

Functional assessment, curriculum, and instruction related to academic and community functioning skills for students with severe disabilities.

0101	Heather Stormont M 4:15pm - 7:00pm	Seats (Total: 35) EDU 0220

EDSP415 **Assessment in Special Education**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Recommended: STAT100; or SOCY201. Restriction: Must be in Special Education program. Jointly offered with EDSP615. Credit only granted f or: EDSP415, or EDSP615.

Knowledge and skills for understanding assessment process and interpretation of assessment data. Emphasis on psychometric aspects of assessment related to screening, eligibility, and program planning.

0101	Kelli Cummings W 1:15pm - 4:00pm	Seats (Total: 35) TYD 2106

EDSP416 **Reading and Writing Instruction in Special Education I**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit General Education: DSHU

Restriction: Must be in Special Education program. Jointly offered with EDSP616. Credit only granted for: EDSP416 or EDSP616.

Assessment and instruction of reading and writing skills for students in special education.

0101	Alexandra Shelton M 1:15pm - 4:00pm	Seats (Total: 28) EDU 1315

EDSP423 **Assessment in Early Childhood Special Education**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Restriction: Must be in Special Education program. Credit only granted for: EDSP423 or EDSP624.

Assessment procedures for infants and young children with disabilities, birth through grade 3.

0101	Joan Lieber	Seats (Total: 35)
	TuTh 12:30pm - 1:45pm	EDU 2119

EDSP430 **Early Intervention: Early Childhood Special Education**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Restriction: Must be in Special Education program. Credit only granted for: EDSP430 or EDSP631.

Intervention with infants and young children with disabilities. Focus on moderate and severe disabilities.

0101	Stacey Williams	Seats (Total: 15)
	W 1:00pm - 3:00pm Contact instructor or department for details.	EDU 2101

EDSP433 **Families and Culture in Early Intervention (Birth-5)**

Credits: 3 Grading Method: Regular, Pass-Fail

Prerequisite: EDHD314 and EDHD425; and (EDHD419 or EDSP420). Corequisite: EDSP430, EDSP315, and EDHD431.

Provides students with the skills and information they need to work effectively with families of young children (birth to age 5) who have or are at risk for disabilities in early childhood or early intervention programs. Students will review current local, state and federal policies establishing the rights of families of infants and young children with disabilities to participate in decision making for their child. We will discuss relevant theoretical and research literature as well as the cultural and contextual issues involved in working with families of very young children. Includes field experiences.

0101	Diane Greig	Seats (Total: 15)
	W 10:00am - 12:00pm Contact instructor or department for details.	EDU 2101

EDSP470 **Introduction to Special Education**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit General Education: DVUP

Restriction: Must not have completed EDSP210. Credit only granted for: EDSP210 or EDSP470.

Designed to give an understanding of the needs of all types of exceptional children.

EC/ECSE majors should register for EDSP211.

0101	Yewon Lee MW 10:00am - 11:15am	Seats (Total: 40) ARC 1101
0201	Yewon Lee MW 12:30pm - 1:45pm	Seats (Total: 40) VMH 1207

EDSP476 **Communicating with Sign Language**

(Perm req)

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Prerequisite: EDSP376. Restriction: Permission of EDUC-Counseling, Higher Education and Special Education department.

Intermediate level receptive/expressive skills in American Sign Language. Aspects of the culture, history, and research perspectives of the deaf community.

0101	Michael Dunham MW 5:00pm - 6:15pm	Seats (Total: 25) KNI 1105

EDSP485 **Assessment and Instruction in Mathematics in Special Education**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Restriction: Must be in Special Education program; or must be in one of the following programs (Special Education (Doctoral); Special Education (Master's)). Jointly offered with EDSP683. Credit only granted for: EDSP485 or EDSP683.

Instructional methods and assessment in mathematics in special education.

0101	Gulnoza Yakubova Th 12:15pm - 3:00pm	Seats (Total: 24) EDU 3236

EDSP489 **Field Experiences in Special Education**

Credits: 1-4 Grading Method: Regular, Pass-Fail, Audit

Planned field experience in education-related activities. Credit not to be granted for experiences accrued prior to registration.

Restriction: Permission of EDUC-Counseling, Higher Education and Special Education department.

Contact department for information to register for this course.

EDSP490 **Teacher Candidate Research Seminar in Special Education**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit CORE: CS

Restriction: Must be in Special Education program.

Study of current issues and research concerning the education of students in special education.

0101	Frances Kohl	Seats (Total: 30)
	Contact instructor or department for details.	

EDSP495 **Internship II: Elementary/Middle Special Education**

Credits: 6-12 Grading Method: Sat-Fail

Corequisite: EDSP490. Restriction: Must be in Special Education program; or must be in one of the following programs (Special Education (Doctoral); Special Education (Master's)). Jointly offered with EDSP695 . Credit only granted for: EDSP 495 or EDSP 695.

Student teaching, full-time for 15 weeks, with elementary or middle school students with disabilities.

Students must pay a $750.00 lab fee.

0101	Stacey Williams	Seats (Total: 25)
	Contact instructor or department for details.	

EDSP498 **Special Problems in Special Education**

(Perm req)

Credits: 1-6 Grading Method: Regular, Pass-Fail, Audit

Available only to education majors who have definite plans for individual study of approved problems. Credit according to extent of work.

Special education majors only.

Contact department for information to register for this course.

EDSP498B **Special Problems in Special Education; Career Development and Advising**

(Perm req)

Credits: 1 Grading Method: Regular, Pass-Fail

Available only to education majors who have definite plans for individual study of approved problems. Credit according to extent of work.

0101	Jessica Chew	Seats (Total: 9)
	Contact instructor or department for details.	

EDSP499 **Workshops, Clinics, and Institutes in Special Education**

Credits: 1-6 Grading Method: Regular, Pass-Fail, Audit

The following type of educational enterprise may be scheduled under this course heading: workshops conducted by the special education department (or developed cooperatively with other departments, colleges and universities) and not otherwise covered in the present course listing. Laboratories, and special education centers; institutes developed around specific topics or problems and intended for designated groups such as school superintendents, principals and supervisors.

0901	Peter Leone	Seats (Total: 5)
	Contact instructor or department for details.	

EDSP603 **Instruction of Students with Physical Disabilities**

Credits: 3 Grading Method: Regular, Audit, Sat-Fail

Restriction: Must be in Special Education (Doctoral) program; or must be in Special Education (Master's) program. Jointly offered with EDSP40 3. Credit only granted for: EDSP403 or EDSP603.

Assessment, curriculum, and instruction for students with physical disabilities. Focus on etiology, environmental and learning adaptations, and assistive technology.

0101	Frances Kohl	Seats (Total: 35)
	Tu 1:15pm - 4:00pm	EDU 1107

EDSP614 **Instruction of Students with Severe Disabilities II**

Credits: 3 Grading Method: Regular, Sat-Fail

Restriction: Must be in Special Education (Master's) program. Credit only granted for: EDSP410 or EDSP614.

Functional assessment, curriculum, and instruction related to academic and community functioning skills for students with severe disabilities.

0101	Heather Stormont M 4:15pm - 7:00pm	Seats (Total: 35) EDU 0220

EDSP615 **Evaluation and Measurement of Exceptional Children and Youth**

Credits: 3

Grading Method: Regular,
Audit, Sat-Fail

Prerequisite: EDSP600 and EDMS646; or permission of EDUC-Counseling, Higher Education and Special Education department. Jointly offered with EDSP415. Credit only granted for: EDSP415 or EDSP615.

Deals with the understanding and interpretation of the results of psychological and educational tests applicable for use with exceptional children and youth.

0101	Kelli Cummings W 1:15pm - 4:00pm	Seats (Total: 35) TYD 2106

EDSP616 **Reading and Writing Instruction in Special Education I**

Credits: 3

Grading Method: Regular,
Audit, Sat-Fail

Restriction: Must be in Special Education (Doctoral) program; or must be in Special Education (Master's) program. Jointly offered with EDSP41 6. Credit only granted for: EDSP416 or EDSP616.

Assessment and instruction of reading and writing skills and strategies for students in special education.

0101	Alexandra Shelton M 1:15pm - 4:00pm	Seats (Total: 28) EDU 1315

EDSP652 **Curriculum and Instruction: Elementary Special Education**

Credits: 3

Grading Method: Regular,
Audit, Sat-Fail

Jointly offered with EDSP451. Credit only granted for: EDSP451 or EDSP6 52.

Methods for instruction of students with disabilities in the general education curriculum. Collaboration with other professionals is included.

PLT1	Kelly Piantedosi	Seats (Total: 30)
	Class time/details on ELMs	ONLINE
	Restricted to students in Special Education for General Education Teachers in Inclusive Classrooms Certificate program.	

EDSP670 **Single Subject Research Designs**

(Perm req)

Credits: 3 Grading Method: Regular, Audit, Sat-Fail

Prerequisite: EDSP600. Restriction: Permission of EDUC-Counseling, Higher Education and Special Education department.

Design, application, and analysis of single subject research in special education classrooms across all disabilities.

0101	Gulnoza Yakubova	Seats (Total: 20)
	Tu 4:15pm - 7:00pm	EDU 1315

EDSP675 **Legal and Policy Foundations for Individuals with Disabilities**

(Perm req)

Credits: 3 Grading Method: Regular, Audit, Sat-Fail

Restriction: Permission of EDUC-Counseling, Higher Education and Special Education department.

Regulatory and statutory foundations for public policies addressing the education of children and youth with disabilities.

0101	Philip Burke	Seats (Total: 15)
	Th 4:15pm - 7:00pm	Location: TBA

EDSP683 **Assessment and Instruction in Mathematics in Special Education**

Credits: 3 Grading Method: Regular, Audit, Sat-Fail

Restriction: Must be in Special Education (Doctoral) program; or must be in Special Education (Master's) program. Jointly offered with EDSP48 5. Credit only granted for: EDSP485 or EDSP683.

Instructional methods and assessment in mathematics in special education.

0101	Gulnoza Yakubova	Seats (Total: 24)
	Th 12:15pm - 3:00pm	EDU 3236

EDSP690 **Teacher Candidate Research Seminar in Special Education**

Credits: 3 Grading Method: Regular, Audit, Sat-Fail

Restriction: Must be in Special Education (Doctoral) program; or must be in Special Education (Master's) program.

Required seminar for master's certification teacher candidates in special education focusing on research methods and applications with students having disabilities.

0101	Frances Kohl	Seats (Total: 30)
	Contact instructor or department for details.	

EDSP695 **Graduate Internship II: Elementary/Middle Special Education**

Credits: 6-11 Grading Method: Sat-Fail, Audit

Corequisite: EDSP690. Recommended: Must be in Special Education (Master's) program EDSPM Special Education. Restriction: Must be in Special Education (Master's) program. Credit only granted for: EDSP495, EDSP695 or EDSP888A.

Student teaching, full-time for 15 weeks, with elementary or middle school students with disabilities.

Students must pay a $750.00 lab fee.

0101	Stacey Williams	Seats (Total: 25)
	Contact instructor or department for details.	

EDSP798 **Special Problems in Special Education**

(Perm req)

Credits: 1-6 Grading Method: Regular, Audit, Sat-Fail

Intended for Master's, AGS, or doctoral students in education who desire to pursue a research problem.

Special education majors only.

Contact department for information to register for this course.

EDSP799 **Master's Thesis Research**

Credits: 1-6 Grading Method: Sat-Fail

Registration required to the extent of six hours for Master's thesis.

Special education majors only.

Contact department for information to register for this course.

EDSP872 **Theory and Empirical Design in Educational Research**

Credits: 3

Grading Method: Regular, Audit, Sat-Fail

Prerequisite: EDMS645 and EDMS646; or permission of EDUC-Counseling, Higher Education and Special Education department. Restriction: Must be in Special Education (Doctoral) program. Credit only granted for: EDSP672 or EDSP872. Formerly: EDSP672.

Design and evaluation of quantitative research in special education across disabilities and ages.

0101	Kelli Cummings	Seats (Total: 10)
	Th 1:15pm - 4:00pm	EDU 1220

EDSP888 **Apprenticeship in Special Education**

(Perm req)

Credits: 1-8

Grading Method: Regular, Audit, Sat-Fail

Apprentice practice under professional supervision in an area of competence compatible with the student's professional goals. Credit not to be granted for experience accrued prior to registration. Open only to degree- and certificate- seeking graduate students.

Contact department for information to register for this course.

EDSP888A **Apprenticeship in Special Education; Apprenticeship in College Teaching**

Credits: 3

Grading Method: Regular, Sat-Fail

Apprentice practice under professional supervision in an area of competence compatible with the student's professional goals. Credit not to be granted for experience accrued prior to registration. Open only to degree- and certificate- seeking graduate students.

Contact department for information to register for this course.

EDSP889 **Internship in Special Education**

(Perm req)

Credits: 3-8

Grading Method: Regular, Audit, Sat-Fail

Internship experiences at a professional level of competence in a particular role with appropriate supervision. Credit not to be granted for experience accrued prior to registration. Open only to students advanced to candidacy for doctoral degree.

Special education majors only.

Contact department for information to register for this course.

EDSP898 **Pre-Candidacy Research**

Credits: 1-8 Grading Method: Regular, Sat-Fail

Contact department for information to register for this course.

EDSP899 **Doctoral Dissertation Research**

(Perm req)

Credits: 6 Grading Method: Sat-Fail

Registration required to the extent of 6-9 hours for an Ed.D. Project and 12-18 hours for a Ph.D. dissertation.

Special education majors only.

Contact department for information to register for this course.

EDUC Education Spring 2020

EDUC388 **Special Topics in Education; Guided Experiences in College Teaching**

(Perm req)

Credits: 3 Grading Method: Regular, Pass-Fail, Audit General Education: DSSP

Restricted to students approved as undergraduate teaching assistants. Section 0101 is reserved for standard UTA program and should be taken concurrently with EDUC498, 0101 for one credit.

0201	Sharon Vanwright Contact instructor or department for details. Contact instructor or department for details. *Relates to Academic Achievement Program- should be taken concurrently w th EDCI 498, Section 6601.*	Seats (Total: 20)

EDUC388C **Special Topics in Education; Guided Experience in Teaching for Peer Educators**

(Perm req)

Credits: 1 Grading Method: Regular, Pass-Fail, Audit General Education: DSSP

0101	Stacia Woycheck, Kasey Ezzat **Meets March 23, 2020 - May 13, 2020** Contact instructor or department for details.	Seats (Total: 15)

EDUC388T **Special Topics in Education; Guided Experiences in College Teaching - UTA**

(Perm req)

Credits: 3 Grading Method: Regular, Pass-Fail, Audit General Education: DSSP

0101	Jessica Haddaway	Seats (Total: 25)	
	M 5:00pm - 7:00pm Class time/details on ELMs	KNI 1103 ONLINE	Discussion

EDUC498 **Selected Topics in Education**

(Perm req)

Credits: 1 Grading Method: Regular, Pass-Fail

Current topics and issues in education.

0101	Jessica Haddaway	Seats (Total: 60)	
	Contact instructor or department for details.		

EDUC645 **Leading Instructional Improvement**

Credits: 3 Grading Method: Regular, Audit, Sat-Fail

Credit only granted for: EDHI645 or EDUC645. Formerly: EDHI645.

Development of knowledge and skills in the use of data bases, research findings and models of supervision, to improve instruction in schools.

Contact department for information to register for this course.

EDUC670 **Learning Communities**

Credits: 3 Grading Method: Regular, Audit, Sat-Fail

Credit only granted for: EDHI670 or EDUC670. Formerly: EDHI670.

Reviews contemporary research on student and teacher learning and schools as learning organizations. It aims to build students understanding of opportunities and challanges to implementing learning environments in various educational organizations. Readings, cases and assignments emphasize students' understanding of learning theories and their application to various organizational settings.

Contact department for information to register for this course.

EDUC701 **Applied Research and Data Based Decision Making for School Leaders**

Credits: 3 Grading Method: Regular, Audit, Sat-Fail

Restriction: Permission of EDUC-College of Education. Credit only granted for: EDUC701 or EDHI701. Formerly: EDHI701.

This course focuses on understanding school system data including student assessments, teacher and administrator evaluations and other program data. Ed.D. students will learn to evaluate the technical characteristics and implications for use of such data as well as how to design instruments to collect needed data.

Contact department for information to register for this course.

EDUC888 **Applied Apprenticeship in Education**

Credits: 1-3 Grading Method: Regular, Audit, Sat-Fail

Apprentice practice under professional supervision in an area of competence compatible with the student's professional goals.

PGCPS II EdD Outreach Program. Registration restricted to program participants.

IH81	Margaret McLaughlin	Seats (Total: 10)
	Contact instructor or department for details.	
	PGCPS III EdD Outreach Program. Registration restricted to program participants.	
IH84	David Imig	Seats (Total: 4)
	Contact instructor or department for details.	
	AA/SMC EdD Program. Registration restricted to program participants. Restriction: Department permission required.	

EDUC898 **Pre-Candidacy Research**

Credits: 2-4 Grading Method: Regular, Sat-Fail

Pre-Candidacy Research

Contact department for information to register for this course.

EDUC899 **Dissertation of Practice Research**

(Perm req)

Credits: 1-6 Grading Method: Sat-Fail

Registration required to the extent of 6-9 hours for an Ed.D. Dissertation.

PGCPS II EdD Outreach Program. Registration restricted to program.

Contact department for information to register for this course.

ENAE Engineering, Aerospace Spring 2020

ENAE200 **Aerospace Engineering Profession II**

Credits: 1

Grading Method: Regular, Pass-Fail, Audit

Recommended: ENAE100. Restriction: Must be in Engineering: Aerospace program; or permission of ENGR-Aerospace Engineering department.

Overview of the engineering profession as it pertains to the role of the engineer in society, professional practice and ethical standards, career development, opportunities and need for lifelong learning, importance of safety and standards, effective written, visual, and oral communications, and the impact of the engineering profession on global issues.

0101	Norman Wereley, Kevin Lewy Tu 2:00pm - 3:15pm Tu 11:00am - 11:50am	Seats (Total: 25) EGR 1202 KEB 2107	 Lab
0102	Kevin Lewy, Norman Wereley Tu 2:00pm - 3:15pm W 11:00am - 11:50am	Seats (Total: 35) EGR 1202 KEB 2111	 Lab
0103	Norman Wereley, Kevin Lewy Tu 2:00pm - 3:15pm Th 11:00am - 11:50am	Seats (Total: 25) EGR 1202 KEB 2107	 Lab
0105	Kevin Lewy, Norman Wereley Tu 2:00pm - 3:15pm Tu 12:00pm - 12:50pm	Seats (Total: 34) EGR 1202 KEB 2111	 Lab

ENAE202 **Computing Fundamentals for Engineers**

(Perm req)

Credits: 3

Grading Method: Regular, Pass-Fail

Corequisite: Must be concurrently enrolled in MATH141. Restriction: Permission of ENGR-Aerospace Engineering department. Credit only granted for: ENAE202 or ENME202.

Introduction to computational tools for the solution of engineering problems. C++ & MATLAB programming including branching and loops, functions, file handling, arrays, and data structures. Students will be introduced to object-oriented programming, basic computing, algorithms, and principles of software engineering.

0101	Robert Sanner MW 1:00pm - 1:50pm Th 3:00pm - 5:00pm	Seats (Total: 23) EGR 1202 KEB 2107	 Lab

0102	Robert Sanner MW 1:00pm - 1:50pm F 3:00pm - 5:00pm	Seats (Total: 23) EGR 1202 EGR 0312	 Lab
0103	Robert Sanner MW 1:00pm - 1:50pm Th 1:00pm - 3:00pm	Seats (Total: 23) EGR 1202 KEB 2107	 Lab
0104	Robert Sanner MW 1:00pm - 1:50pm F 1:00pm - 3:00pm	Seats (Total: 23) EGR 1202 EGR 0312	 Lab
0105	Robert Sanner MW 1:00pm - 1:50pm Th 3:00pm - 5:00pm	Seats (Total: 23) EGR 1202 EGR 0312	 Lab
0106	Robert Sanner MW 1:00pm - 1:50pm F 3:00pm - 5:00pm	Seats (Total: 23) EGR 1202 KEB 2107	 Lab

ENAE324 **Aerospace Structures**

Credits: 4 Grading Method: Regular, Pass-Fail, Audit

Prerequisite: ENES220. Restriction: Must be in Engineering: Aerospace program.

Analysis of torsion, beam bending, plate bending, buckling and their application to aerospace.

0101	Olivier Bauchau MW 10:00am - 10:50am F 11:00am - 12:50pm	Seats (Total: 62) CSI 2117 BPS 1243	 Discussion
0201	Mary Bowden MW 11:00am - 11:50am F 11:00am - 12:50pm	Seats (Total: 62) CSI 2117 ATL 1113	 Discussion
0301	Giuseppe Pennisi MW 10:00am - 10:50am F 11:00am - 12:50pm	Seats (Total: 62) EGR 1108 EGR 1108	 Discussion

ENAE398H **Honors Research Project**

(Perm req)

Credits: 1-3

Grading Method: Regular, Pass-Fail

Planned sequence of steps in aerospace honors research in which students take three (3) consecutive semesters of this course in partial fulfillment of aerospace engineering honors program requirements. The first semester consists of a series of seminars and meetings with faculty mentors on honors research; two semesters consist of undergraduate honors research project and paper conducted under the direction of an aerospace engineering faculty member to be presented at a conference.

Contact department for information to register for this course.

ENAE404 **Space Flight Dynamics**

Credits: 3

Grading Method: Regular, Pass-Fail

Prerequisite: ENAE301. Restriction: Must be in Engineering: Aerospace program; or permission of ENGR-Aerospace Engineering department.

Three-dimensional motion under central fields. Solutions to orbital motion, orbital elements, time elements. Kepler's laws. Orbital maneuvering, rendezvous and station-keeping. Rigid-body attitude dynamics, spacecraft attitude dynamics.

0101	Christine Hartzell	Seats (Total: 95)
	TuTh 9:30am - 10:45am	KEB 1110

ENAE414 **Aerodynamics II**

Credits: 3

Grading Method: Regular, Pass-Fail, Audit

Prerequisite: ENAE311. Restriction: Must be in Engineering: Aerospace program; or permission of ENGR-Aerospace Engineering department. And junior standing or higher.

Aerodynamics of inviscid incompressible flows. Aerodynamic forces and moments. Fluid statics/buoyancy force. Vorticity, circulation, the stream function and the velocity potential. Bernoulli's and Laplace's equations. Flows in low speed wind tunnels and airspeed measurement. Potential flows involving sources and sinks, doublets, and vortices. Development of the theory of airfoils and wings.

0101	Anya Jones	Seats (Total: 90)
	TuTh 9:30am - 10:45am	CHE 2108

ENAE420 **Computational Structural Mechanics**

Credits: 3

Grading Method: Regular, Pass-Fail, Audit

Prerequisite: ENES220 and MATH241; and must have completed a course in linear algebra. Restriction: Must be in Engineering: Aerospace program; or permission of ENGR-Aerospace Engineering department.

Introductory of finite element methods for aerospace engineering modeling and analysis; equips students with ability to understand manuals of commercial finite element analysis software.

0101	Sung Lee TuTh 12:30pm - 1:45pm	Seats (Total: 28) CSI 2118	

ENAE425 Mechanics of Composite Structures

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Prerequisite: MATH246, ENAE324, ENES220, and MATH241.

Introduction to structures composed of composite materials and their applications in aerospace. In particular, filamentary composite materials are studied. Material types and fabrication techniques, material properties, micromechanics, anisotropic elasticity, introduction to failure concepts.

0101	Norman Wereley, Andrew Becnel MWF 12:00pm - 12:50pm	Seats (Total: 25) AJC 2134	

ENAE432 Control of Aerospace Systems

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Prerequisite: Minimum grade of C- in ENAE301 and ENAE283. Restriction: Junior standing or higher; and must be in Engineering: Aerospace program.

An introduction to the feedback control of dynamic systems. Laplace transforms and transfer function techniques; frequency response and Bode diagrams. Stability analysis via root locus and Nyquist techniques. Performance specifications in time and frequency domains, and design of compensation strategies to meet performance goals.

0101	Robert Sanner MWF 9:00am - 9:50am M 1:00pm - 1:50pm	Seats (Total: 42) EGR 1202 EGR 1104	 Discussion
0102	Robert Sanner MWF 9:00am - 9:50am M 2:00pm - 2:50pm	Seats (Total: 43) EGR 1202 PHY 0405	 Discussion

0103	Robert Sanner MWF 9:00am - 9:50am W 1:00pm - 1:50pm	Seats (Total: 42) EGR 1202 EGR 1104	 Discussion
0104	Robert Sanner MWF 9:00am - 9:50am W 1:00pm - 1:50pm	Seats (Total: 43) EGR 1202 ITV 1111	 Discussion

ENAE464 **Aerospace Engineering Laboratory**

Credits: 3 Grading Method: Regular, Pass-Fail

Prerequisite: ENAE324, ENAE362, ENAE311, and ENAE432. Restriction: Must be in Engineering: Aerospace program; or permission of ENGR-Aerospace Engineering department.

Application of fundamental measuring techniques to measurements in aerospace engineering. Includes experiments in aerodynamics, structures, propulsion, flight dynamics and astrodynamics. Correlation of theory with experimental results.

0101	Allen Winkelmann MW 11:00am - 11:50am M 2:00pm - 5:00pm	Seats (Total: 20) JMP 3201 EGL 0121	 Lab
0102	Allen Winkelmann MW 11:00am - 11:50am Tu 2:00pm - 5:00pm	Seats (Total: 20) JMP 3201 EGL 0121	 Lab
0103	Allen Winkelmann MW 11:00am - 11:50am W 2:00pm - 5:00pm	Seats (Total: 20) JMP 3201 EGL 0121	 Lab
0104	Allen Winkelmann MW 11:00am - 11:50am Th 2:00pm - 5:00pm	Seats (Total: 20) JMP 3201 EGL 0121	 Lab
0105	Allen Winkelmann MW 11:00am - 11:50am Tu 8:00am - 11:00am	Seats (Total: 20) JMP 3201 EGL 0121	 Lab
0201	Andrew Becnel MW 11:00am - 11:50am Th 2:00pm - 5:00pm	Seats (Total: 24) EGR 0108 EGR 3102	 Lab

0202	Andrew Becnel MW 11:00am - 11:50am F 2:00pm - 5:00pm	Seats (Total: 28) EGR 0108 EGR 2116	 Lab

ENAE471 **Aircraft Flight Testing**

Credits: 3 Grading Method: Regular, Pass-Fail

Prerequisite: ENAE414. Corequisite: ENAE403. Restriction: Must be in Engineering: Aerospace program.

Provides basic instruction to aircraft flight testing and demonstrates need for systematic, well-proven technique to allow for accurate airplane performance. Concepts of aerodynamics, airplane performance, and stability and control. Emphasis on single-engine general aviation type aircraft.

0101	John Tritschler Th 4:00pm - 6:30pm	Seats (Total: 16) JMP 2216
SG01	John Tritschler Th 4:00pm - 6:30pm	Seats (Total: 5) Location: TBA
SM01	John Tritschler Th 4:00pm - 6:30pm	Seats (Total: 5) Location: TBA
TV01	John Tritschler Th 4:00pm - 6:30pm	Seats (Total: 5) Location: TBA

ENAE482 **Aeronautical Systems Design**

Credits: 3 Grading Method: Regular, Pass-Fail CORE: CS

Prerequisite: ENAE455, ENAE423, ENAE403, and ENAE481. Restriction: Must be in Engineering: Aerospace program; and senior standing or higher.

Senior capstone design course in the aeronautics track. Introduction of computerized methods for sizing and performance analysis. More comprehensive methods to predict weight, aerodynamics and propulsion system characteristics. Consideration in design disciplines such as vulnerability, maintainability, produceability, etc. Groups of students will complete, brief and report on a major design study to specific requirements.

0101	Dominic Palumbo MWF 1:00pm - 1:50pm	Seats (Total: 30) EGR 0135

0201	Sung Lee MW 12:00pm - 1:15pm *This section is restricted to students on the Design, Build, Fly team and requires permission from the department to enroll.*	Seats (Total: 15) CHE 2140
0301	James Baeder, Vengalattore Nagaraj MW 3:30pm - 4:45pm *This section is restricted to students in the AHS Helicopter Design Competition and requires permission of the department to enroll.*	Seats (Total: 10) EGR 3111
0401	Vengalattore Nagaraj, James Baeder M 6:00pm - 9:00pm *Restricted to students in the DOE Challenge and requires permission of the instructor to enroll.*	Seats (Total: 10) EGR 1110

ENAE484 **Space Systems Design**

Credits: 3 | Grading Method: Regular, Pass-Fail | CORE: CS

Prerequisite: ENAE423, ENAE483, ENAE441, and ENAE457. Restriction: Must be in Engineering: Aerospace program.

Senior capstone design course in the space track. Group preliminary design of a space system, including system and subsystem design, configuration control, costing, risk analysis, and programmatic development. Course also emphasizes written and oral engineering communications.

0101	David Akin, Andrew Becnel, Jarred Young TuTh 11:00am - 12:15pm	Seats (Total: 30) Location: TBA
0102	Andrew Becnel, Jarred Young, David Akin TuTh 1:00pm - 2:15pm	Seats (Total: 30) Location: TBA
0103	David Akin, Jarred Young, Andrew Becnel MW 9:00am - 10:15am	Seats (Total: 30) Location: TBA
0104	David Akin, Andrew Becnel, Jarred Young MW 5:00pm - 6:15pm	Seats (Total: 30) Location: TBA

ENAE488C **Topics in Aerospace Engineering; Computational Fluid Dynamics**

Credits: 3 | Grading Method: Regular, Pass-Fail, Audit

Technical elective taken with the permission of the student's advisor and instructor. Lecture and conference courses designed to extend the student's understanding of aerospace engineering. Current topics are emphasized.

Prerequisite: ENAE 311; ENAE 202; MATH 240, 246; Computer programming experience either in MATLAB, FORTRAN, C++, or Python Restriction: Must be in Engineering: Aerospace program. An introduction to Computational Fluid Dynamics (CFD), with an emphasis on the application of CFD to predict fluid flow behavior for basic and moderately complex geometries. Introduces students to the entire process of CFD from grid generation, application of CFD solvers, and post-processing using state-of-the-art commercial software. Finite difference and finite volume methods, explicit and implicit schemes, solutions of elliptic, parabolic, and hyperbolic equations. Additionally, students will be provided with a fundamental understanding that will enable them to choose the right CFD tools, evaluate, and CFD results.

0101	Ashish Nedungadi	Seats (Total: 15)
	Th 4:00pm - 6:30pm	PLS 1115

ENAE488E **Topics in Aerospace Engineering; Electro-Mechanical System Modeling**

Credits: 3 Grading Method: Regular, Pass-Fail

Technical elective taken with the permission of the student's advisor and instructor. Lecture and conference courses designed to extend the student's understanding of aerospace engineering. Current topics are emphasized.

Prerequisite: ENAE423 or equivalent Credit only granted for ENAE488E or ENAE788E Analysis techniques for simulating resonances and impedances in systems that couple physical interactions electrical, mechanical, magnetic and piezoelectric domains. Analysis applied to modeling the electro-magneto-mechano-acoustic domain interactions in traditional loud speaker designs, and can be extended to design of sensors, energy harvesters and actuators.

0101	Alison Flatau	Seats (Total: 10)
	TuTh 11:00am - 12:15pm	EGR 1102

ENAE488F **Topics in Aerospace Engineering; Introduction to Aviation for Pilot Training**

Credits: 3 Grading Method: Regular, Pass-Fail

Technical elective taken with the permission of the student's advisor and instructor. Lecture and conference courses designed to extend the student's understanding of aerospace engineering. Current topics are emphasized.

Course not approved for graduate students. Prerequisite: ENAE283 or permission of department. Restriction: Must be in Engineering: Aerospace program. Introduction to how pilots view the design of an aerospace vehicle. Topics include aerodynamic principles, pilot training, flight instruments, flight maneuvers, aeronautical charts and communication, aviation weather, & airplane performance and navigation.

0101	Daniel George	Seats (Total: 42)
	Tu 7:00pm - 9:30pm	EGR 1104

ENAE488I **Topics in Aerospace Engineering; Advanced Space Propulsion and Power**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Technical elective taken with the permission of the student's advisor and instructor. Lecture and conference courses designed to extend the student's understanding of aerospace engineering. Current topics are emphasized.

Prerequisite: ENAE457 or equivalent

0101	Raymond Sedwick	Seats (Total: 28)
	TuTh 9:30am - 10:45am	EGR 2116

ENAE499 **Elective Research**

(Perm req)

Credits: 3 Grading Method: Regular, Pass-Fail

Undergraduate research project and paper conducted under the direction of an aerospace engineering faculty member to be presented at a conference or competition.

Contact department for information to register for this course.

ENAE633 **Helicopter Dynamics**

(Perm req)

Credits: 3 Grading Method: Regular, Audit, Sat-Fail

Prerequisite: ENAE631. Or permission of ENGR-Aerospace Engineering department; and permission of instructor.

Flap dynamics. Mathematical methods to solve rotor dynamics problems. Flap-lag-torsion dynamics and identify structural and inertial coupling terms. Overview on rotary wing unsteady aerodynamics. Basic theory of blade aeroelastic stability and ground and air resonance stability, vibration analyses and suppression.

0101	Anubhav Datta TuTh 9:30am - 10:45am	Seats (Total: 20) JMP 2222	
SG01	Anubhav Datta TuTh 9:30am - 10:45am	Seats (Total: 5) Location: TBA	
SM01	Anubhav Datta TuTh 9:30am - 10:45am	Seats (Total: 5) Location: TBA	
TV01	Anubhav Datta TuTh 9:30am - 10:45am	Seats (Total: 5) Location: TBA	

ENAE634 **Helicopter Design**

(Perm req)

Credits: 3 Grading Method: Regular, Audit, Sat-Fail

Prerequisite: ENAE631. Or permission of ENGR-Aerospace Engineering department; and permission of instructor.

Principles and practice of the preliminary design of helicopters and similar rotary wing aircrafts. Design trend studies, configuration selection and sizing methods, performance and handling qualities analyses, structural concepts, vibration reduction and noise. Required independent design project conforming to a standard helicopter request for proposal (RFP).

0101	Inderjit Chopra F 1:00pm - 2:50pm F 3:00pm - 4:50pm	Seats (Total: 15) Location: TBA Location: TBA	 Lab

ENAE646 **Advanced Dynamics of Aerospace Systems**

Credits: 3 Grading Method: Regular, Audit, Sat-Fail

Prerequisite: ENAE301. Credit only granted for: ENAE788G or ENAE646. Formerly: ENAE788G.

Introduces the principles and methods for formulating and analyzing mathematical models of aerospace systems using Newtonian, Lagrangian, and Hamiltonian formulations of particle and rigid body dynamics. Additional topics include applied dynamical systems, geometric mechanics, and symmetry and reduction.

0101	Olivier Bauchau TuTh 11:00am - 12:15pm	Seats (Total: 18) AJC 2121

ENAE654 **Mechanics of Composite Structures**

Credits: 3 Grading Method: Regular, Sat-Fail

An introduction to structures composed of composite materials and their applications in aerospace. In particular, filamentary composite materials are studied. Material types and fabrication techniques, material properties, micromechanics, anisotropic elasticity, introduction to failure concepts.

0101	Norman Wereley, Andrew Becnel	Seats (Total: 10)
	MWF 12:00pm - 12:50pm	AJC 2134

ENAE663 **Introduction to Plasmas for Space Propulsion and Power**

Credits: 3 Grading Method: Regular, Audit, Sat-Fail

Recommended: PHYS270 or equivalent.

Characteristics of plasmas, motion of charged particles in fields, collisional processes, kinetic theory, fluid desctiption of plasmas, transpot properties, equilibrium vs. non-equilibrium, generation of plasmas.

0101	Raymond Sedwick	Seats (Total: 15)
	W 4:00pm - 6:30pm	CHE 2140

ENAE665 **Advanced Airbreathing Propulsion**

(Perm req)

Credits: 3 Grading Method: Regular, Audit, Sat-Fail

Prerequisite: ENAE674 and ENAE455; or students who have taken courses with comparable content may contact the department. Restriction: Permission of instructor.

Advanced treatment of airbreathing propulsion technologies, propulsion system analysis, and engine/airframe integration. Topics will vary, but may include novel engine cycles, advanced gas turbine systems, pulsed systems, and high-speed engines, including scramjets and combined cycle systems.

0101	Kenneth Yu	Seats (Total: 15)
	TuTh 11:00am - 12:15pm	JMP 1202

ENAE674 **Aerodynamics of Compressible Fluids**

(Perm req)

Credits: 3 Grading Method: Regular, Audit, Sat-Fail

Restriction: Permission of ENGR-Aerospace Engineering department.

One-dimensional flow of a perfect compressible fluid. Shock waves. Two-dimensional linearized theory of compressible flow. Two-dimensional transonic and hypersonic flows. Exact solutions of two-dimensional isotropic flow. Linearized theory of three-dimensional potential flow. Exact solution of axially symmetrical potential flow. One-dimensional flow with friction and heat addition.

0101	Christopher Cadou	Seats (Total: 25)
	TuTh 12:30pm - 1:45pm	EGR 3102

ENAE676 **Turbulence**

Credits: 3 Grading Method: Regular, Audit, Sat-Fail

Prerequisite: ENAE673. Recommended: ENAE674.

Physical and statistical descriptions of turbulence; review of phenomenological theories for turbulent flows; scales of motion; correlations and spectra; homogeneous turbulent flows; inhomogeneous shear flows; turbulent flows in pipes and channels; turbulent boundary layers; theory of methods for turbulent flows (Reynolds stress equations, LES, DES, DNS); experimental methods for turbulence measurements.

0101	Pino Martin	Seats (Total: 20)
	TuTh 9:30am - 10:45am	EGR 0135

ENAE682 **Hypersonic Aerodynamics**

(Perm req)

Credits: 3 Grading Method: Regular, Audit, Sat-Fail

Restriction: Permission of ENGR-Aerospace Engineering department.

Hypersonic shock and expansion waves, Newtonian theory, Mach methods, numerical solutions to hypersonic inviscid flows, hypersonic boundary layer theory, viscous interactions, numerical solutions to hypersonic viscous flows. Applications to hypersonic vehicles.

0101	Stuart Laurence	Seats (Total: 20)
	TuTh 12:30pm - 1:45pm	EGR 1110

ENAE694 **Spacecraft Communications**

Credits: 3 Grading Method: Regular, Audit, Sat-Fail

Brief overview of satellite orbits. Radio frequency communications, noise, and bandwidth limitations. Link budget analysis. Modulation and multiplexing approaches, multiple access systems. Satellite transponder and Earth station technology.

0101	David Israel	Seats (Total: 15)
	MW 5:00pm - 6:15pm	MTH B0431

ENAE696 **Spacecraft Thermal Design**

Credits: 3 Grading Method: Regular, Audit, Sat-Fail

Thermal sources in space. Black-body radiation; absorptivity and emissivity; radiative thermal equilibrium. Mutually radiating plates, view angles, and interior conduction. Techniques of spacecraft thermal analysis; approaches to passive and active thermal control.

0101	Eric Silk	Seats (Total: 15)
	TuTh 6:30pm - 7:45pm	AJC 2121

ENAE743 **Applied Nonlinear Control of Aerospace Systems**

Credits: 3 Grading Method: Regular, Audit, Sat-Fail

Prerequisite: ENAE641.

Mathematics and methods of nonlinear systems analysis and nonlinear control design, including nonlinear models and phenomena, Lyapunov stability, input-output stability, passivity and frequency domain analysis, nonlinear controllability and observability, feedback linearization, sliding mode control, and integrator backstepping.

0101	Debdipta Goswami, Derek Paley	Seats (Total: 25)
	TuTh 12:30pm - 1:45pm	AJC 2119

ENAE788G **Selected Topics in Aerospace Engineering; Aeroacoustics**

Credits: 3 Grading Method: Regular, Audit, Sat-Fail

Aeroacoustics deals with sound generated fluid mechanically because of turbulence, the motion of solid bodies through a fluid, vortex and shear flows, propagating shocks, and combinations of these mechanisms. This course will examine the basics of fundamental acoustics as well as the sources of noise generation and propagation in aerospace applications (primarily jet noise and rotor noise). This will require the derivation and application of various methods applicable to acoustic propagation.

0101	James Baeder	Seats (Total: 20)
	TuTh 11:00am - 12:15pm	JMP 2222

SG01	James Baeder TuTh 11:00am - 12:15pm	Seats (Total: 5) Location: TBA
SM01	James Baeder TuTh 11:00am - 12:15pm	Seats (Total: 5) Location: TBA
TV01	James Baeder TuTh 11:00am - 12:15pm	Seats (Total: 5) Location: TBA

ENAE788L **Selected Topics in Aerospace Engineering; Optimal Estimation of Dynamic Systems**

Credits: 3 Grading Method: Regular, Audit, Sat-Fail

Prerequisite: ENAE404 or equivalent, ENAE441 recommended. Optimal estimation or orbit and attitude of spacecraft. Probability concepts in dynamic systems including measurement and modeling uncertainty. Filtering and smoothing for spacecraft navigation and other aerospace applications. Parameter and state estimation applications.

0101	Liam Healy TuTh 9:30am - 10:45am	Seats (Total: 20) JMP 1109

ENAE788V **Selected Topics in Aerospace Engineering; Motion Planning for Autonomous Systems**

Credits: 3 Grading Method: Regular, Audit, Sat-Fail

Recommended: completion of mid-level programming course Autonomous systems (e.g., aircraft, vehicles, manipulators, and robots) must plan long-term movement that respects environmental constraints such as obstacles, other actors, and wind; system constraints such as kinematics, dynamics, and fuel; as well as factors such as time and safety. Robust autonomy also requires dealing with environmental changes, new information, and uncertainty. This course provides an overview of such problems and the methods used to solve them.

0101	Michael Otte TuTh 2:00pm - 3:15pm	Seats (Total: 15) JMP 2217
SG01	Michael Otte TuTh 2:00pm - 3:15pm	Seats (Total: 5) Location: TBA
SM01	Michael Otte TuTh 2:00pm - 3:15pm	Seats (Total: 5) Location: TBA

TV01	Michael Otte TuTh 2:00pm - 3:15pm	Seats (Total: 5) Location: TBA

ENAE791 **Launch and Entry Vehicle Design**

Credits: 3 Grading Method: Regular, Audit, Sat-Fail

Prerequisite: ENAE601.

Design of aerospace vehicles for atmospheric transit to and from space. Generic formulation of atmospheric flight dynamics. Ballistic and lifting entry trajectories. Estimation of vehicle aerodynamic properties and aerothermodynamic heating. Entry thermal protection design. Trajectory analysis of sounding rockets and orbital launch vehicles. Serial, parallel, and hybrid multistaging schemes, optimal multistaging. Constrained trajectory optimization. Launch vehicle economic and reliability analysis, flight termination systems, sensors and actuators.

0101	David Akin TuTh 3:30pm - 4:45pm	Seats (Total: 20) CHE 2116

ENAE799 **Master's Thesis Research**

Credits: 1-6 Grading Method: Sat-Fail

Contact department for information to register for this course.

ENAE898 **Pre-Candidacy Research**

Credits: 1-8 Grading Method: Regular, Sat-Fail

Contact department for information to register for this course.

ENAE899 **Doctoral Dissertation Research**

(Perm req)

Credits: 6 Grading Method: Sat-Fail

Contact department for information to register for this course.

ENCE Engineering, Civil Spring 2020

ENCE100 **Introduction to Civil and Environmental Engineering**

Credits: 1 Grading Method: Regular, Pass-Fail, Audit

An overview of the department of Civil and Environment Engineering. Students are introduced to the undergraduate curriculum and will be exposed to other undergraduate and graduate students at various points in their program. The course blends panel presentations by seniors and graduate students, faculty and practitioners with a project and book review to be performed by the students.

0101	Charles Schwartz W 1:00pm - 1:50pm	Seats (Total: 100) CHE 2108

ENCE200 **Civil Engineering Computation**

(Perm req)

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Prerequisite: ENES100, MATH141, and ENES102; and permission of ENGR-Civil & Environmental Engineering department. Credit only granted for: ENCE200 or ENCE202. Formerly: ENCE202.

Development of knowledge and skills in managing, analyzing, interpreting, and communicating spatial information. Computer Aided Drawing (CAD) and Geographic Information Systems (GIS) are introduced in the context of civil and environmental engineering applications.

0101	Michael Humber, Frank White MW 2:00pm - 3:15pm	Seats (Total: 37) EGR 1156
0201	Frank White, Michael Humber MW 3:30pm - 4:45pm	Seats (Total: 37) EGR 1156

ENCE201 **Engineering Information Processing**

(Perm req)

Credits: 3 Grading Method: Regular, Pass-Fail

Prerequisite: ENES220 and MATH241; and permission of ENGR-Civil & Environmental Engineering department. Corequisite: MATH246. Credit only granted for: ENCE201 or ENCE203.

Exploration of algorithms for solving problems in several important areas of numerical computing: roots of equations; matrix algebra and the systems of linear equations; function approximation, numerical differentiation and integration; and ordinary differential equations. Issues of solution accuracy, robustness, and efficiency are also considered. Numerical techniques are presented in the context of engineering applications, and example problems are solved using a variety of computer-based tools (primarily MATLAB).

0101	Peter Chang MWF 2:00pm - 2:50pm	Seats (Total: 35) KEB 1110

0201	David Lovell MWF 2:00pm - 2:50pm	Seats (Total: 35) EGR 2154	

ENCE215 **Engineering for Sustainability**

(Perm req)

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Prerequisite: CHEM135; and permission of ENGR-Civil & Environmental Engineering department.

Engineers have a key role to play in planning, designing, building, and ensuring a sustainable future. In this class, a problem-based approach is used to examine fundamentally-based analyses and approaches for engineering as sustainable society, with a focus on sustainable use of energy and materials, sustainable infrastructure solutions, atmospheric sustainability and sustainable water supply, and human population growth and resource consumption and its implications for sustainability.

0101	Natasha Almeida e Andrade TuTh 9:30am - 10:45am	Seats (Total: 35) ESJ B0320	
0201	Natasha Almeida e Andrade TuTh 2:00pm - 3:15pm	Seats (Total: 35) EGR 1104	

ENCE300 **Fundamentals of Engineering Materials**

(Perm req)

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Prerequisite: ENES220; and permission of ENGR-Civil & Environmental Engineering department.

Behavior, physical, mechanical and chemical properties, design and performance of civil engineering materials, including aggregates, cement, concrete, asphalt binders and mixtures, plastics and geosynthetics, timber, metals and alloys. Modified and advanced highway materials (polymer and rubber modified mixtures, high performance concrete, composites, smart materials). Laboratory testing with hands-on experience on aggregates, Portland cement concrete, asphalt mixtures, timber and metals as per SUPERAVE, ACI design methods, and ASTM standards and specifications.

0101	Dimitrios Goulias Tu 12:30pm - 2:30pm Th 10:30am - 12:30pm	Seats (Total: 18) CSI 3117 EGL 0147	 Lab
0102	Dimitrios Goulias Tu 12:30pm - 2:30pm Th 12:30pm - 2:30pm	Seats (Total: 18) CSI 3117 EGL 0147	 Lab

0201	Dimitrios Goulias Tu 12:30pm - 2:30pm Th 2:30pm - 4:30pm	Seats (Total: 18) CSI 3117 EGL 0147	 Lab
0202	Dimitrios Goulias Tu 12:30pm - 2:30pm Th 4:30pm - 6:30pm	Seats (Total: 18) CSI 3117 EGL 0147	 Lab

ENCE302 **Probability and Statistics for Civil and Environmental Engineers**

(Perm req)

Credits: 3 Grading Method: Regular, Pass-Fail

Prerequisite: MATH246 and ENCE201; and permission of ENGR-Civil & Environmental Engineering department.

Statistics is the science of data. Civil Engineers must often make decisions based on incomplete, variable or uncertain information. In addition, modern methods of design and analysis need to account for variability in natural, engineered and human systems. After successful completion of this class, a student should have facility and familiarity with established basic techniques for managing data, modeling variability and uncertainty, communicating about data and decisions, and supporting or defending a decision or judgment based on uncertain or incomplete data.

0101	Allison Reilly MWF 2:00pm - 2:50pm	Seats (Total: 40) EGR 1202
0102	Michelle Bensi MWF 2:00pm - 2:50pm	Seats (Total: 40) EGR 1104

ENCE305 **Fundamentals of Engineering Fluids**

(Perm req)

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Prerequisite: ENES220, PHYS260, and PHYS261; and permission of ENGR-Civil & Environmental Engineering department. Credit only granted for: BIOE331, ENCE305, ENFP300, or ENME331.

The theoretical bases for fluid statics and dynamics, including the conservation of mass, energy and momentum. Modeling of hydraulic systems are introduced. Emphasis on pipe flow and open-channel hydraulics, with real-world applications.

0201	Kaye Brubaker MWF 10:00am - 10:50am	Seats (Total: 43) EGR 3106

0301	Richard McCuen	Seats (Total: 42)
	MWF 10:00am - 10:50am	EGR 1104

ENCE310 **Introduction to Environmental Engineering**

(Perm req)

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Prerequisite: PHYS260 and ENCE215; and permission of ENGR-Civil & Environmental Engineering department.

Introduction to the physical, chemical and biological systems relating to the quality of water, land and air environments. Fundamental principles will be emphasized, current environmental pollution problems will be examined and methods of pollution abatement discussed.

0101	Natasha Almeida e Andrade	Seats (Total: 30)
	TuTh 8:00am - 9:15am	EGR 2116

ENCE320 **Introduction to Project Management**

(Perm req)

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Prerequisite: Permission of ENGR-Civil & Environmental Engineering department. Restriction: Must be in a major in ENGR-A. James Clark School of Engineering or in the Project Management Minor. Credit only granted for: ENCE320 or ENCE325.

Learn the fundamentals of project management and the analytical skills for the management side of engineering projects.Topics include economic analysis, project screening and selection, organizational and project structure, scheduling, budgeting, resource management, life cycle costing, and project control.

0101	Gregory Baecher	Seats (Total: 100)
	Th 5:00pm - 7:30pm	ESJ 1224
	Click here for syllabus.	

ENCE325 **Introduction to Construction Project Management**

(Perm req)

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Restriction: Must be in a major in ENGR-A. James Clark School of Engineering; or must be in a major in ARCH-School of Architecture, Planning, & Preservation; or must be in the Construction Project Management minor. And permission of ENGR-Civil & Environmental Engineering department. Credit only granted for: ENCE 320 or ENCE 325.

Learn the basic topics in sourcing, planning, financing, designing, contracting, constructing and operating buildings and other facilities in the built infrastructure. Topics include construction economics, design constructability reviews, construction process planning, contracts and procurement strategies, project scheduling and resource utilization, site layout planning, project cost and quality controls, temporary structures, environmental sustainability, project handover procedures, facility operation and management, IT-based tools for construction project and resource management.

0101	Stephen Wooldridge	Seats (Total: 50)
	Th 5:00pm - 7:30pm	EGR 1108

ENCE340 **Fundamentals of Geotechnical Engineering**

(Perm req)

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Prerequisite: ENES220; and permission of ENGR-Civil & Environmental Engineering department.

Introductory study of soils in civil engineering. Soil origin, phase relationships and classification schemes. Soil hydraulics: capillary, effective stress, permeability and seepage considerations. Basic stress distribution theories and soil consolidation-settlement analysis. Integration of shear strength evaluation with slope stability analysis. If time permits, topics such as applications in geoenvironmental engineering will be covered.

0101	Ahmet Aydilek	Seats (Total: 55)
	TuTh 11:00am - 12:15pm	EGR 0108

ENCE353 **Introduction to Structural Analysis**

(Perm req)

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Prerequisite: Permission of ENGR-Civil & Environmental Engineering department; and (MATH246 and ENES220).

The basic tools of structural analysis and design. Design loads. Equilibrium of external and internal forces. Shear and moment diagrams in beams and frames. Truss analysis. Influence line diagrams. The slope-deflection method and method of consistent deformation. Matrix stiffness methods for beams, frames and trusses.

0101	Mark Austin	Seats (Total: 62)
	MWF 9:00am - 9:50am	EGR 0108

ENCE360 **Analysis of Civil Engineering Systems**

(Perm req)

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Prerequisite: ENCE201 and MATH140; and permission of ENGR-Civil & Environmental Engineering department.

Introduction to systems approach and systems analysis in civil and environmental engineering. Introduction to systems analysis tools that facilitate engineering management decision making including optimization and computer simulation. Introduction to linear and nonlinear mathematical optimization including linear and integer programming, elementary nonlinear programming and dynamic programming.

0101	Ali Haghani	Seats (Total: 36)
	TuTh 9:30am - 10:45am	EGR 1156

ENCE370 **Introduction to Transportation Engineering and Planning**

(Perm req)

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Prerequisite: ENCE201, PHYS260, and PHYS261; and permission of ENGR-Civil & Environmental Engineering department.

Engineering problems of transportation by highways, airways, pipelines, waterways, and railways. Transportation modes and technologies, vehicle dynamics, basic facility design, traffic stream models, capacity analysis, transportation planning, evaluation and choice, and network analysis.

0101	Cinzia Cirillo	Seats (Total: 48)
	MWF 1:00pm - 1:50pm	PHY 1402

ENCE402 **Simulation and Design of Experiments for Engineers**

(Perm req)

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Prerequisite: ENCE302; and permission of ENGR-Civil & Environmental Engineering department.

Review of statistics and hypothesis testing, sample design and design of experiments, generation of discrete and continuous distributions and their applications. Introduction of simulation languages and simulation of discrete and continuous engineering systems. Output analysis, model validation and sensitivity and reliability analysis.

0101	David Lovell	Seats (Total: 40)
	TuTh 11:00am - 12:15pm	EGR 1104

ENCE411 **Environmental Engineering Science**

(Perm req)

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Prerequisite: ENCE310; and permission of ENGR-Civil & Environmental Engineering department.

Introduces the analytical techniques available to assess performance of engineering processes as they relate to water, soil, and air treatment and quality. The basic principles of environmental management, economics of waste treatment, by-product reutilization, and energy cycles are introduced and discussed. Alternative technologies are introduced and evaluated mostly by assessing their potential to reduce waste, minimize energy use, and promote sustainability. Students' activities include, a weekly lab to provide hands-on experience with environmental quality measurements and treatment techniques; on-site visits to regional industries that undertake sustainable practices; and a final research project where experimental design and laboratory techniques are used to assess interactions between technologies and natural systems and their potential for reducing environmental impacts.

0101	Alba Torrents TuTh 11:00am - 11:50am W 10:00am - 1:00pm	Seats (Total: 9) EGR 1110 EGR 0136	 Lab
0102	Alba Torrents TuTh 11:00am - 11:50am W 2:00pm - 5:00pm	Seats (Total: 9) EGR 1110 EGR 0136	 Lab

ENCE412 **Environmental Engineering Unit Operations**

(Perm req)

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Prerequisite: ENCE305 and ENCE310; and permission of ENGR-Civil & Environmental Engineering department.

Examination of unit operations and processes encountered in environmental engineering field. Fundamental principles learned from previous classes will be applied into the design and operation of unit operations and processes, particularly in the area of water and wastewater treatment. Similar processes will be applied to air pollution control, solid waste disposal and hazardous waste treatment.

0101	Allen Davis TuTh 2:00pm - 3:15pm	Seats (Total: 43) EGR 3106

ENCE421 **Legal Aspects of Architectural and Engineering Practice**

(Perm req)

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Restriction: Must be in a major in ENGR-A. James Clark School of Engineering; or must be in the Construction Project Management minor; or must be in the Project Management Minor. And permission of ENGR-Civil & Environmental Engineering department.

Learn the basic structure of the US legal system and court procedures and legal principles relevant to architectural and engineering design and construction contracts including principles of ethical, legal and professional conduct of engineers and architects.Topics include: contracts for design and construction, sales and warranties, torts and product liability, business agency and government agencies, professional liability of architects and engineers, labor laws, expert testimony, mediation and arbitration, tangible property including real estate, intellectual property including trademarks, patents and copyrights, insurance and sureties.

0101	Miroslaw Skibniewski	Seats (Total: 60)
	M 5:00pm - 7:30pm	CHE 2108

ENCE422 **Project Cost Accounting and Economics**

(Perm req)

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Prerequisite: Permission of ENGR-Civil & Environmental Engineering department. Restriction: Must be in a major in ENGR-A. James Clark School of Engineering; or must be in the Construction Project Management Minor; or must be in the Project Management Minor.

Learn: the fundamentals of accounting; project cost accounting principles as they apply to project management; project cost accounting; and the fundamentals of engineering economics.Topics include: project feasibility analysis; reading and analyzing financial statements; cash management; cash flow analysis; depreciation and taxes; and impact on profitability; the principles of activity based costing; net present value analysis; the framework for project performance measurement, cost performance indices, and earned value analysis.

A Partnership for Action Learning in Sustainability (PALS) course where students apply classroom learning to actual community needs.

0101	Qingbin Cui	Seats (Total: 75)
	W 4:00pm - 6:40pm	JMP 3201

ENCE423 **Project Planning, Estimating & Scheduling**

(Perm req)

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Restriction: Must be in a major in ENGR-A. James Clark School of Engineering; or must be in the Construction Project Management Minor; or must be in the Project Management Minor. And permission of ENGR-Civil & Environmental Engineering department.

Learn the fundamentals of project planning, estimating, and scheduling. Understand the concepts of planning; to reduce uncertainty, improve efficiency of the operation, to set and meet objectives, and to provide a basis for monitoring and controlling the work. Be introduced to: the concepts of resource definition, assignment and management, and; the basics of project estimating (pricing) methods including global pricing strategies, types of estimates, pricing processes, overhead and profit, and project financing.Learn the basics of project scheduling including; bar charts, network-based methodologies, and linear scheduling techniques. Emphasis is placed on Critical Path Method (CPM) scheduling, a network based methodology. Be exposed to the use of scheduling software and will actually develop a CPM schedule for an actual construction project as part of a semester project.

0101	Kenneth O'Connell M 5:00pm - 7:30pm	Seats (Total: 75) KEB 1110

ENCE424 **Communication for Project Managers**

(Perm req)

Credits: 3 Grading Method: Regular, Pass-Fail

Prerequisite: Permission of ENGR-Civil & Environmental Engineering department. Restriction: Must be in a major in ENGR-A. James Clark School of Engineering; or must be in the Construction Project Management Minor; or must be in the Project Management Minor.

Learn the fundamentals of communications for project managers. Emphasis is on interpersonal and group communications; through voice, electronic, and written messages; project cycle and reports and presentations during this cycle; and communications for employment.

0101	Shana Webster-Trotman Tu 5:00pm - 7:30pm	Seats (Total: 35) ESJ 1215
0102	Shana Webster-Trotman W 5:00pm - 7:30pm	Seats (Total: 35) ESJ 0215

ENCE426 **Construction Documentation and BIM Applications in Engineering and Construction**

(Perm req)

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Prerequisite: Permission of ENGR-Civil & Environmental Engineering department. Restriction: Must be in a major in ENGR-A. James Clark School of Engineering; or must be in the Construction Project Management Minor; or must be in the Project Management Minor.

Learn the basics of construction documentation methods, with particular emphasis on Building Information Modeling (BIM). Topics include: the fundamentals of assembly, coordination, and maintenance of construction documents and implementation of BIM techniques in the design and construction processes, and; a review of Autodesk, Revit, and Navisworks and other leading BIM software. Lectures from project management faculty supplemented by guest lecturers from the construction industry.

0101	Jason Dreher W 5:00pm - 7:30pm	Seats (Total: 41) EGR 0108	
0201	Jason Dreher Th 5:00pm - 7:30pm	Seats (Total: 40) EGR 0135	

ENCE431 **Hydrologic Engineering**

(Perm req)

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Prerequisite: ENCE305; and permission of ENGR-Civil & Environmental Engineering department.

An introduction to basic principles of hydrologic science including the hydrologic cycle, rainfall, surface runoff and streamflow. Special emphasis is placed on hydrologic engineering design of stormwater management and flood control facilities. Design projects are used to illustrate design practices.

0101	Richard McCuen MWF 9:00am - 9:50am	Seats (Total: 43) EGR 1104	

ENCE444 **Experimental Methods in Geotechnical Structural Engineering**

(Perm req)

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Prerequisite: ENCE353 and ENCE340; and permission of ENGR-Civil & Environmental Engineering department.

In the geotechnical engineering part of the course, major soils testing and their interpretation including classification, compaction, strength, and compressibility will be undertaken. The structural engineering part of this course covers test planning, loading apparatus, instrumentation, data acquisition and data analysis, as well as basic aspects of structural testing techniques and shake-table test.

0101	Yunfeng Zhang, Mohamed Aggour Tu 2:00pm - 2:50pm W 1:00pm - 4:00pm	Seats (Total: 20) EGR 0135 EGR 3114	 Lab

0201	Mohamed Aggour, Yunfeng Zhang	Seats (Total: 20)	
	Tu 2:00pm - 2:50pm	AJC 2119	
	W 1:00pm - 4:00pm	EGR 1102	Lab

ENCE453 **Computer-Aided Structural Analysis**

(Perm req)

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Prerequisite: ENCE353; and permission of ENGR-Civil & Environmental Engineering department.

Computer-aided analysis of structural systems. Unified matrix formulation of stiffness and flexibility methods. Slope deflection method. Evaluation of truss, frame, and grid systems. Non-prismatic and curved elements. Error analysis and determination of ill-conditions. Introduction to finite element methods; formulation of simple two-dimensional elements. In laboratory, use and development of CAD software.

0101	Peter Chang	Seats (Total: 32)
	TuTh 9:30am - 10:45am	EGR 2154

ENCE455 **Design of Steel Structures**

(Perm req)

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Prerequisite: ENCE353; and permission of ENGR-Civil & Environmental Engineering department.

Behavior and design of members subjected to fatigue, and combined bending and compression; plate girders, composite beams, open-web joists and connections. Methods of allowable stress design, and load and resistance factor design. Elements of plastic analysis and design. Framing systems and loads for industrial buildings and bridges.

0101	Peter Chang	Seats (Total: 40)
	TuTh 12:30pm - 1:45pm	CHE 2136

ENCE466 **Design of Civil Engineering Systems**

(Perm req)

Credits: 3 Grading Method: Regular, Pass-Fail CORE: CS

Prerequisite: Permission of ENGR-Civil & Environmental Engineering department. Restriction: Senior standing. Additional information: Must be taken in the semester in which the student graduates.

A major civil engineering design experience that emphasizes development of student creativity, development and use of design methodologies, evaluation of alternate solutions, feasibility considerations, and detailed system descriptions. Realistic design constraints including economic factors, safety, aesthetics, and reliability will be imposed. Students will work in design project groups and be required to exercise oral and written communication skills.

0101	Russell Anderson Tu 3:30pm - 4:45pm Th 3:30pm - 4:45pm	Seats (Total: 40) EGR 1202 EGR 1156	 Discussion
0102	Russell Anderson Tu 3:30pm - 4:45pm Th 2:00pm - 3:15pm	Seats (Total: 40) EGR 1202 EGR 1156	 Discussion

ENCE472 **Transportation Engineering**

(Perm req)

Credits: 3

Grading Method: Regular, Pass-Fail, Audit

Prerequisite: ENCE302 and ENCE370; and permission of ENGR-Civil & Environmental Engineering department.

Transportation engineering concepts including transportation systems analysis, airport systems, airline and airport operations, marine transportation and urban public transportation systems.

A Partnership for Action Learning in Sustainability (PALS) course where students apply classroom learning to actual community needs.

0101	Paul Schonfeld TuTh 12:30pm - 1:45pm	Seats (Total: 35) JMP 1109

ENCE489 **Special Problems in Civil Engineering**

Credits: 1-4

Grading Method: Regular, Pass-Fail, Audit

A course arranged to meet the needs of exceptionally well prepared students for study in a particular field of civil engineering.

Contact department for information to register for this course.

ENCE489G **Special Problems in Civil Engineering; Sustainability and Infrastructure**

Credits: 3

Grading Method: Regular, Pass-Fail, Audit

A course arranged to meet the needs of exceptionally well prepared students for study in a particular field of civil engineering.

Contact department for information to register for this course.

ENCE602 **Project Procurement Management**

Credits: 3 Grading Method: Regular, Audit, Sat-Fail

Fundamental concepts and techniques for project acquisition and procurement are presented. Students are introduced to the PMBOK Guide six-step procurement process and expected to develop an in-depth understanding of project evaluation, planning, financing, contracting, negotiation, and procurement execution. It will also cover emerging methods, principles, and practices in infrastructure project procurement, including Public-Private Partnerships, Carbon project procurement, and Clean Development Mechanism.

PM01	Qingbin Cui	Seats (Total: 25)
	Class time/details on ELMs	ONLINE
	Weekly video conferences Wednesdays 8:00-9:00pm.	

ENCE604 **Sustainabilty Fundamentals for Project Managers**

Credits: 3 Grading Method: Regular, Audit, Sat-Fail

Addresses the fundamentals of sustainability for project managers including best practices of modern sustainable construction and project management. Commercial and residential buildings consume about 40 percent of the energy used in the United States. The course therefore emphasizes the application of the sustainable development goals to the built environment, including the practical operational aspects of sustainable facility project management and sustainable construction by contractors. The course also will cover the fundamental concepts of sustainable project development and the move towards economic prosperity, environmental protection, and social equity, taking all three dimensions into account to achieve sustainability. Project managers need to take responsibility for more sustainable development of organizations, facilities, and projects.

0101	Neil Schulman	Seats (Total: 29)
	M 1:00pm - 3:40pm	JMP 2217
PM01	Neil Schulman	Seats (Total: 30)
	Class time/details on ELMs	ONLINE
	Weekly videoconferences Wednesdays 7:00-8:00pm.	
SG01	Neil Schulman	Seats (Total: 20)
	Contact instructor or department for details.	

SM01	Neil Schulman	Seats (Total: 20)
	Contact instructor or department for details.	

ENCE605 **Evolving as a Project leader**

Credits: 3 Grading Method: Regular, Sat-Fail

Prerequisite: ENCE665. Additional information: This course builds on the foundation created in ENCE 665 MANAGEMENT OF PROJECT TEAMS. It uses the self-assessment portfolios students created in ENCE 665 for some course exercises.

Projects are now used by many organizations for the implementation of strategic initiatives. This means that project managers must be able to do more than manage, organize, and control. They must be able to lead the project team and its stakeholders through change. This course explores four themes 1) Leadership theory with an emphasis on servant and situational leadership; 2) Vital leadership skills; 3) Project leadership in traditional and agile projects; and, 4) Developing your leadership skills.

0101	William Brantley	Seats (Total: 30)
	Sa 10:00am - 3:15pm Class time/details on ELMs	AJC 2119 ONLINE
	Meets Saturday 10:00am-3:15pm face to face on the following dates: 2/8, 3/7, 4/11, 4/25, and 5/9. Video Conference meets Thursdays 8:00 - 9:00pm on the following dates: 1/29, 2/13, 2/20, 2/27, 3/12, 3/26, 4/2, 4/16, 4/30 and 5/14. Projects are now used by many organizations for the implementation of strategic initiatives. This means that project managers must be able to do more than manage, organize, and control. Project managers must be able to lead the project team and its stakeholders through change. This course explores four themes 1) Leadership theory with an emphasis on servant and situational leadership; 2) Vital leadership skills; 3) Project leadership in traditional and agile projects; and, 4) Developingyour leadership skills.	

ENCE607 **Mastering Agile Project Management**

Credits: 3 Grading Method: Regular, Audit, Sat-Fail

Prerequisite: Must have completed or be concurrently enrolled in ENCE662.

Learn how and why Agile project management is the fastest growing and most successful project management philosophy today. Learn the mechanics of how to design and facilitate projects using pure Agile Scrum and Lean Kanban techniques; The tradeoffs of using hybrid techniques such as Lean Startup, Scaled Agile for the Enterprise, and Disciplined Agile Development. Then go beyond these frameworks to the science beneath with the essential principles to ensure you get the best benefits of Agile project management methods.

0101	John Johnson Th 5:00pm - 7:40pm	Seats (Total: 25) AJC 2119

ENCE611 **Finite Element Methods**

Credits: 3 Grading Method: Regular, Audit, Sat-Fail

Formerly: ENCE661.

Basic principles and fundamental concepts of the finite element method. Consideration of geometric and material nonlinearities, convergence, mesh gradation and computational procedures in analysis. Applications to plane stress and plane strain, plates and shells, eigenvalue problems, axisymmetric stress analysis, and other problems in civil engineering.

0101	Amde Amde TuTh 5:00pm - 6:15pm	Seats (Total: 25) EGR 2154

ENCE622 **Construction Automation & Robotics**

Credits: 3 Grading Method: Regular, Audit, Sat-Fail

Covers advanced technologies leading to redesign and partial or full automation of selected construction processes utilizing industrial robotics. Lectures and presentations will cover topics such as basic robotic technology (robot kinematics and dynamics, industrial manipulators, mobility bases, end effectors, sensors, control systems, and robot task programming), design of automated construction processes, selection of means and methods for automated construction processes, robot ergonomics and safety, calculation of costs and benefits of construction robots in selected applications, engineering and economic feasibility of automation and robotics in the construction industry.

Cross-listed with ARCH688C. Credit only granted for ENCE622 or ARCH688C.

0101	Miroslaw Skibniewski Tu 4:00pm - 6:40pm	Seats (Total: 25) JMP 2217

ENCE627 **Project Risk Management**

Credits: 3 Grading Method: Regular, Sat-Fail

Restriction: Must not have completed ENCE627.

Introduction to identifying, analyzing, assessing, and managing risks inherent to engineering projects. Includes: probability modeling, choice and value theory, schedule and cost risk, risk mitigation and transfer, and contract considerations of project risk. Examples are drawn from construction, software development, systems integration, and other large engineering projects; and cover probability basics, subjective probability, statistical data analysis, introduction to decision theory, Monte Carlo simulation, value of information, and risk-based decision making.

0101	Gregory Baecher	Seats (Total: 30)
	F 8:00am - 10:40am	JMP 2216

ENCE635 **Geographic Information Systems for Watershed Analysis**

Credits: 3 Grading Method: Regular, Audit, Sat-Fail

Credit only granted for: ENCE524 or ENCE688Z. Formerly: ENCE688Z.

Emphasis is on the use of GIS to support the analysis and modeling tasks associated with watershed planning and management. This course familiarizes the student with fundamentals of GIS data models, projections, and coordinate systems. Students develop a set of GIS- based alogrithms solving common engineering problems in hydrology. Internet data sources and GPS technology are also covered.

0101	Kaye Brubaker	Seats (Total: 20)
	MW 8:00am - 9:15am	EGR 1156

ENCE662 **Introduction to Project Management**

Credits: 3 Grading Method: Regular, Audit, Sat-Fail

Introduction to project management including: overview and concepts of project management (principles, body of knowledge, strategies); planning successful projects (defining, specifying, delivery options, scheduling, budgeting); implementing (organizing the team, work assignments, team building, effective leadership); executing (performance measurement, maintaining the schedule, adjustments/mid-course corrections, record keeping, status reporting, communications, managing conflict, time management); and closeout(performance measurement, maintaining the schedule, adjustments/mid-course corrections, record keeping, status reporting, communications, managing conflict, time management).

PM01	John Johnson	Seats (Total: 35)
	Meets January 21, 2020 - May 12, 2020	
	Class time/details on ELMs	ONLINE
	Weekly video conferences Monday or Tuesday 8:00 PM - 9:00 PM.	

ENCE664 **Legal Aspects of Engineering Design and Construction**

Credits: 3 Grading Method: Regular, Audit, Sat-Fail

Examines ways in which the legal system affects the design and construction process. Focuses on contract types and the relationships between the parties in different delivery systems. Covers basics of procurement protocols along with negotiating techniques and strategies. Topics include contract law, the relationships between the parties, tort and negligence law, and the statutory principles affecting construction.

0101	Thomas Powell, Mark Groff, Thomas Barham W 4:00pm - 6:40pm	Seats (Total: 50) JMP 2121
SG01	Thomas Barham, Mark Groff, Thomas Powell TBA	Seats (Total: 20) BLD3 3240
SM01	Thomas Powell, Thomas Barham, Mark Groff Contact instructor or department for details.	Seats (Total: 20)

ENCE665 **Management of Project Teams**

Credits: 3 Grading Method: Regular, Audit, Sat-Fail

Experience has shown that really excellent project managers are not only technically competent but that they have above average skills in human relations and communications. The course will prepare project managers to optimize the utilization of their most important resource: people. Relying primarily on a wide range of research and experience in the Project Team, this course will help guide project managers in building the other skills needed to be truly successful in the competitive Project Team.

PM01	Jocelyn Davis Class time/details on ELMs *Weekly video conferences: Monday 6:00 PM - 7:00 PM.*	Seats (Total: 25) ONLINE

ENCE673 **Urban Transportation**

Credits: 3 Grading Method: Regular, Audit, Sat-Fail

The contempory methodology of urban transportation planning. The urban transportation planning process, interdependence between the urban transportation system and the activity system, urban travel demand models, evaluation of urban transportation alternatives and their implementation.

0101	Kaveh Farokhi Sadabadi TuTh 12:30pm - 1:45pm	Seats (Total: 25) EGR 1102

ENCE674 **Urban Transit Planning and Rail Transportation Engineering**

Credits: 3 Grading Method: Regular, Audit, Sat-Fail

Basic engineering components of conventional and high speed railroads and of air cushion and other high speed new technology. The study of urban rail and bus transit. The characteristics of the vehicle, the supporting way, and the terminal requirements will be evaluated with respect to system performance, capacity, cost, and level of service.

0101	Paul Schonfeld Tu 5:00pm - 7:45pm	Seats (Total: 20) EGR 2116

ENCE677 **OR Models for Transportation Systems Analysis**

Credits: 3 Grading Method: Regular, Audit, Sat-Fail

Fundamental skills and concepts of the quantitative techniques of operations research including: mathematical modeling, linear programming, integer programming, network optimization (shortest paths, minimum spanning trees, minimum cost network flows, maximum flows), heuristics, and basics of probabilistic modeling. Emphasis on the application of these techniques to problems arising in transportation.

0101	Ali Haghani TuTh 3:30pm - 4:45pm	Seats (Total: 20) EGR 1102

ENCE688C **Advanced Topics in Civil Engineering; Signal Design and Operational Analysis**

Credits: 3 Grading Method: Regular, Audit, Sat-Fail

Advanced topics selected by the faculty from the current literature of civil engineering to suit the needs and background of students. May be taken for repeated credit when identified by topic title.

This course will introduce several key methodologies and models for design of traffic signal for urban networks, including isolated intersection arterial signal progression, multi-modal traffic signal progression, a nd network decomposition. Both the pre-timed signals with off-line data and real-time adaptive controls with various surveillance systems will be covered in the topics of system implementation. Students for this course are expected to have the traffic engineering background or some exposure on Traffic flow theory.

0101	Gang-Len Chang	Seats (Total: 20)
	Th 5:00pm - 7:30pm	EGR 1104

ENCE688J **Advanced Topics in Civil Engineering; Data Analysis in the Built Environment: An Introduction to R**

Credits: 3

Grading Method: Regular, Audit, Sat-Fail

Advanced topics selected by the faculty from the current literature of civil engineering to suit the needs and background of students. May be taken for repeated credit when identified by topic title.

This is an interdisciplinary course focusing on building strong data science skills through application. Students will learn various modes ofdata acquisition, including how to bring in data and restructure it for analysis. In addition, students will learn how to examine data visually and how to conduct exploratory data analysis. Students will also learn the basics of code reproducibility, techniques for managing, storing andaccessing large data streams, and will be introduced to modern statistical modeling. This is an applied course designed to enhance students' computing and data analytic skills. Students will be expected to be active learners and to develop a hands on appreciation ofworking with large datasets in an interdisciplinary setting. Students are assumed to have little no R experience.

0101	Deb Niemeier	Seats (Total: 30)
	W 2:00pm - 4:40pm	CHM 1228

ENCE688L **Advanced Topics in Civil Engineering; Advances in Transportation Demand Modeling**

Credits: 1-3

Grading Method: Regular, Audit, Sat-Fail

Advanced topics selected by the faculty from the current literature of civil engineering to suit the needs and background of students. May be taken for repeated credit when identified by topic title.

0101	Cinzia Cirillo	Seats (Total: 20)
	W 4:45pm - 7:15pm	EGR 1110

ENCE688Y **Advanced Topics in Civil Engineering; Research Methods Seminar**

Credits: 1

Grading Method: Regular, Audit, Sat-Fail

Advanced topics selected by the faculty from the current literature of civil engineering to suit the needs and background of students. May be taken for repeated credit when identified by topic title.

Intended for PhD and MSc students enrolled in the Project Management Program. It is strongly recommended for PhD candidates to develop their re-search topic and build strong research capability. The course provides a sound under-standing of the enterprise of engineering research, from selecting a thesis topic, to the development of a research proposal, to planning and executing a research plan, to writ-ing a dissertation and publishable articles. Students will review published research re -ports, conduct a literature survey, and write a preliminaryresearch proposal. Students will carry out assignments involving design of small experiments, and learn how to statistically analyze data and report results. The course comprises lectures from PM faculty and guest lecturers.

0101	Gregory Baecher, Qingbin Cui	Seats (Total: 25)
	F 10:00am - 10:50am	Location: TBA

ENCE689 **Seminar**

Credits: 1-16 Grading Method: Regular, Audit, Sat-Fail

Majors only. Other majors require permission of department.

Contact department for information to register for this course.

ENCE713 **Concrete Structures I**

Credits: 3 Grading Method: Regular, Audit, Sat-Fail

Formerly: ENCE753.

The behavior and strength of reinforced concrete members under combined loadings, including the effects of creep, shrinkage and temperature. Mechanisms of shear resistance and design procedures for bond, shear and diagonal tension. Elastic and ultimate strength analysis and design of slabs. Columns in multistory frames. Applications to reinforced concrete structures.

0101	Amde Amde	Seats (Total: 25)
	TuTh 3:30pm - 4:45pm	EGR 2154

ENCE715 **Earthquake Engineering**

(Perm req)

Credits: 3 Grading Method: Regular, Audit, Sat-Fail

Restriction: Permission of instructor. Formerly: ENCE755.

Review of SDOF and MDOF structural dynamics; characteristics of earthquakes; philosophies of seismic design; elastic and inelastic response spectra; design for ductility; principles of capacity design; design of structural systems requiring special performance criteria.

0101	Yunfeng Zhang W 5:00pm - 7:30pm	Seats (Total: 20) EGR 3114

ENCE717 **Bridge Structures**

Credits: 3 Grading Method: Regular, Audit, Sat-Fail

Formerly: ENCE751.

The design and rating of bridge structures in accordance with the AASHTO WSD, LFD, ALFD, and LRFD specifications. Development of the basic strength and performance requirements as defined within AASHTO, area and various foreign codes. Projects requiring the design, rating and ultimate strength evaluations will be assigned for all of the predominate construction types including: simple and continuous span, straight and horizontally curved, non-composite and composite w and box section superstructure elements.

0101	Chung Fu Tu 5:00pm - 7:30pm	Seats (Total: 25) EGR 0135

ENCE741 **Earth Retaining Structures**

Credits: 3 Grading Method: Regular, Audit, Sat-Fail

Introduction to types and uses of earth retaining structures, and lateral earth pressure concepts and theories. Analysis and design of retaining walls and shoring structures and their bracing systems. These include conventional retaining walls, mechanically stabilized earth walls, cantilever and anchored sheet piling, cellular cofferdams, braced cuts, soil nailing, and the design of tiebacks and anchors. Load and resistance factor design concept will be presented.

0101	Mohamed Aggour Th 5:00pm - 7:30pm	Seats (Total: 25) EGR 2116

ENCE799 **Master's Thesis Research**

Credits: 1-6 Grading Method: Sat-Fail

Majors only. Other majors require permission of department.

Contact department for information to register for this course.

ENCE898 **Pre-Candidacy Research**

Credits: 1-8 Grading Method: Regular, Sat-Fail

Contact department for information to register for this course.

ENCE899 **Doctoral Dissertation Research**

(Perm req)

Credits: 6 Grading Method: Sat-Fail

Majors only. Other majors require permission of department.

Contact department for information to register for this course.

ENCH Engineering, Chemical Spring 2020

ENCH609 **Graduate Seminar**

(Perm req)

Credits: 1 Grading Method: Regular, Audit, Sat-Fail

Advanced special students require department permission.

0101	Taylor Woehl	Seats (Total: 30)
	Tu 11:00am - 12:00pm	CHE 2110

ENCH630 **Transport Phenomena**

(Perm req)

Credits: 3 Grading Method: Regular, Audit, Sat-Fail

Prerequisite: CHBE422; and ENCH424. Or students who have taken courses with comparable content may contact the department. Restriction: Permission of ENGR-Chemical & Biomolecular Engineering department.

Heat, mass and momentum transfer theory from the viewpoint of the basic transport equations. Steady and unsteady state; laminar and turbulent flow; boundary layer theory, mechanics of turbulent transport; with specific application to complex chemical engineering situations.

0101	Panagiotis Dimitrakopoulos	Seats (Total: 30)
	MW 3:30pm - 4:45pm	EGR 2116

ENCH640 **Advanced Chemical Reaction Kinetics**

(Perm req)

Credits: 3 Grading Method: Regular, Audit, Sat-Fail

Prerequisite: CHBE440; or students who have taken courses with comparable content may contact the department. Restriction: Permission of ENGR-Chemical & Biomolecular Engineering department.

The theory and application of chemical reaction kinetics to reactor design. Reaction rate theory; homogeneous batch and flow reactors; fundamentals of catalysis; design of heterogeneous flow reactors.

0101	Kyu Yong Choi MW 2:00pm - 3:15pm	Seats (Total: 30) EGR 2116

ENCH648 **Special Problems in Chemical Engineering**

(Perm req)

Credits: 1-16 Grading Method: Regular, Audit, Sat-Fail

Contact department for information to register for this course.

ENCH648C **Special Problems in Chemical Engineering; Control of Air Pollution Sources**

(Perm req)

Credits: 3 Grading Method: Regular, Audit, Sat-Fail

0101	Akua Asa-Awuku TuTh 12:30pm - 1:45pm	Seats (Total: 10) ESJ 2309

ENCH648D **Special Problems in Chemical Engineering; Biopharmaceutical Process Development and Manufacturing**

(Perm req)

Credits: 3 Grading Method: Regular, Audit, Sat-Fail

0101	Deborah Goldberg MW 12:30pm - 1:45pm	Seats (Total: 3) AJC 2119

ENCH648K **Special Problems in Chemical Engineering; Advanced Fuel Cells and Batteries**

(Perm req)

Credits: 3 Grading Method: Regular, Audit, Sat-Fail

0101	Chunsheng Wang MW 11:00am - 12:15pm	Seats (Total: 10) JMP 2121
ME01	Chunsheng Wang Class time/details on ELMs	Seats (Total: 15) ONLINE

ENCH648N **Special Problems in Chemical Engineering; Bionanotechnology**

(Perm req)

Credits: 3 Grading Method: Regular, Audit, Sat-Fail

Cross-listed with BIOE689N. Credit granted for ENCH648N or BIOE689N.

0101	Srinivasa Raghavan TuTh 3:30pm - 4:45pm	Seats (Total: 33) CHE 2110

ENCH648Q **Special Problems in Chemical Engineering; Mesoscopic and Nanoscale Thermodynamics**

(Perm req)

Credits: 3 Grading Method: Regular, Audit, Sat-Fail

0101	Mikhail Anisimov TuTh 12:30pm - 1:45pm	Seats (Total: 5) EGR 1104

ENCH799 **Master's Thesis Research**

(Perm req)

Credits: 1-6 Grading Method: Sat-Fail

Contact department for information to register for this course.

ENCH898 **Pre-Candidacy Research**

(Perm req)

Credits: 1-8 Grading Method: Regular, Sat-Fail

Contact department for information to register for this course.

ENCH899 **Doctoral Dissertation Research; Chemical Engineering**

(Perm req)

Credits: 6 Grading Method: Sat-Fail

Contact department for information to register for this course.

ENEE Electrical & Computer Engineering Spring 2020

ENEE101 **Introduction to Electrical & Computer Engineering**

(Perm req)

Credits: 3 Grading Method: Regular, Pass-Fail

Corequisite: MATH140. And corequisite: ENEE140 or CMSC131; or a score of 5 on the A Java AP exam; or a score of 4 or 5 on the AB Java AP exam; or satisfactory performance on the department's placement exam. Restriction: Must be in one of the following programs (Engineering: Electrical; Engineering: Computer) ; and students cannot enroll in ENEE101 and ENES100 in the same semester.

An exploration of topics within Electrical & Computer Engineering (ECE). Students will be introduced to key elements of both the Electrical Engineering and Computer Engineering curriculum, including: circuits, computing systems and software, communications and controls, electrodynamics and waves, microelectronics, signal processing, and power systems.

0101	Joseph JaJa F 12:00pm - 12:50pm MW 8:00am - 9:50am	Seats (Total: 12) EGR 1202 AVW 1344	 Lab
0102	Joseph JaJa F 12:00pm - 12:50pm MW 10:00am - 11:50am	Seats (Total: 12) EGR 1202 AVW 1344	 Lab
0103	Joseph JaJa F 12:00pm - 12:50pm MW 12:00pm - 1:50pm	Seats (Total: 12) EGR 1202 AVW 1344	 Lab
0104	Joseph JaJa F 12:00pm - 12:50pm MW 2:00pm - 3:50pm	Seats (Total: 12) EGR 1202 AVW 1344	 Lab
0105	Joseph JaJa F 12:00pm - 12:50pm TuTh 8:00am - 9:50am	Seats (Total: 12) EGR 1202 AVW 1344	 Lab
0106	Joseph JaJa F 12:00pm - 12:50pm TuTh 10:00am - 11:50am	Seats (Total: 12) EGR 1202 AVW 1344	 Lab
0107	Joseph JaJa F 12:00pm - 12:50pm TuTh 12:00pm - 1:50pm	Seats (Total: 12) EGR 1202 AVW 1344	 Lab
0108	Joseph JaJa F 12:00pm - 12:50pm TuTh 2:00pm - 3:50pm	Seats (Total: 12) EGR 1202 AVW 1344	 Lab
0109	Joseph JaJa F 12:00pm - 12:50pm MW 4:00pm - 5:50pm	Seats (Total: 12) EGR 1202 AVW 1344	 Lab
0110	Joseph JaJa F 12:00pm - 12:50pm TuTh 4:00pm - 5:50pm	Seats (Total: 12) EGR 1202 AVW 1344	 Lab

ENEE140 Introduction to Programming Concepts for Engineers

(Perm req)

Credits: 2

Grading Method: Regular, Pass-Fail

Prerequisite: Permission of ENGR-Electrical & Computer Engineering department. Restriction: Must be in Engineering: Electrical program; or must be in Engineering: Materials Science program.

Introduction to the programming environment: editing, compiling, UNIX, data types and variable scope; program selection, formatted/unformatted input/output, repetition, functions, arrays and strings.

0101	Tudor Dumitras Tu 3:30pm - 4:45pm WF 9:00am - 9:50am	Seats (Total: 12) EGR 0108 AVW 1454	Discussion
0102	Tudor Dumitras Tu 3:30pm - 4:45pm WF 10:00am - 10:50am	Seats (Total: 12) EGR 0108 AVW 1454	Discussion
0103	Tudor Dumitras Tu 3:30pm - 4:45pm WF 11:00am - 11:50am	Seats (Total: 12) EGR 0108 AVW 1454	Discussion
0104	Tudor Dumitras Tu 3:30pm - 4:45pm WF 1:00pm - 1:50pm	Seats (Total: 12) EGR 0108 AVW 1454	Discussion

ENEE150 **Intermediate Programming Concepts for Engineers**

(Perm req)

Credits: 3

Grading Method: Regular, Pass-Fail

Prerequisite: Permission of ENGR-Electrical & Computer Engineering department. And ENEE140 or CMSC131; or score of 5 on the A Java AP exam; or score of 4 or 5 on the AB Java AP exam; or satisfactory performance on the department's placement exam. Corequisite: MATH140. Restriction: Must be in Engineering: Electrical program. Credit only granted for: ENEE114 or ENEE150. Formerly: ENEE114.

Advanced programming concepts: coding conventions and style; pointers; dynamic memory allocation and data structures; linked lists; graphs; abstract data types; object-oriented design. There will be team-based software projects and group presentations.

0101	Gang Qu MW 11:00am - 12:15pm Th 9:00am - 9:50am	Seats (Total: 12) CHM 2201 AVW 1454	Discussion

0102	Gang Qu MW 11:00am - 12:15pm Th 10:00am - 10:50am	Seats (Total: 12) CHM 2201 AVW 1454	Discussion
0103	Gang Qu MW 11:00am - 12:15pm Th 11:00am - 11:50am	Seats (Total: 12) CHM 2201 AVW 1442	Discussion
0201	William Hawkins TuTh 11:00am - 12:15pm F 11:00am - 11:50am	Seats (Total: 12) EGR 0135 AVW 1442	Discussion
0202	William Hawkins TuTh 11:00am - 12:15pm F 1:00pm - 1:50pm	Seats (Total: 12) EGR 0135 AVW 1442	Discussion
0203	William Hawkins TuTh 11:00am - 12:15pm F 2:00pm - 2:50pm	Seats (Total: 12) EGR 0135 AVW 1442	Discussion

ENEE200 **Technology and Consequences: Engineering, Ethics, and Humanity**

Credits: 3 | Grading Method: Regular, Pass-Fail | CORE: IE | General Education: DSHU, SCIS

What makes a technology socially responsible? At UMD, the Fearless Ideas campaign asks us to aim our enthusiasm for technology at big real problems. At the same time, we are coming to appreciate the increasingly complex nature of technological systems as they become integrated into all forms of infrastructure, we realize they may be unpredictable, interdependent on social and biological systems, and have unintended consequences. In this midst of this complexity, people make decisions with far reaching impacts. How then do we follow our passion for technology and innovation but also stay skeptical in a way that allows us to consider the potential and shortcomings of technology? Designed for both engineering and non-engineering students wishing to explore and assess the impact of engineering technology on society and the role of society in generating that technology.

0101	Nicole Mogul TuTh 2:00pm - 3:15pm F 9:00am - 10:15am	Seats (Total: 16) ESJ 1224 EGR 3111	Discussion
0102	Nicole Mogul TuTh 2:00pm - 3:15pm F 10:00am - 11:15am	Seats (Total: 16) ESJ 1224 CHM 1228	Discussion

0103	Nicole Mogul TuTh 2:00pm - 3:15pm F 10:00am - 11:15am	Seats (Total: 16) ESJ 1224 CHM 0127	 Discussion
0104	Nicole Mogul TuTh 2:00pm - 3:15pm F 12:00pm - 1:15pm	Seats (Total: 16) ESJ 1224 CHM 0127	 Discussion
0105	Nicole Mogul TuTh 2:00pm - 3:15pm F 2:00pm - 3:15pm	Seats (Total: 16) ESJ 1224 CHM 0127	 Discussion
0106	Nicole Mogul TuTh 2:00pm - 3:15pm F 11:00am - 12:15pm	Seats (Total: 16) ESJ 1224 CHM 0128	 Discussion
0107	Nicole Mogul TuTh 2:00pm - 3:15pm F 12:00pm - 1:15pm	Seats (Total: 16) ESJ 1224 CHM 0124	 Discussion

ENEE205 **Electric Circuits**

(Perm req)

Credits: 4 Grading Method: Regular, Pass-Fail

Prerequisite: Minimum grade of C- in PHYS260; and minimum grade of C- in PHYS261; and permission of ENGR-Electrical & Computer Engineering department. Corequisite: MATH246. Restriction: Must be in one of the following programs (Engineering: Computer; Engineering: Electrical). Credit only granted for: ENEE204 or ENEE205. Formerly: ENEE204.

Design, analysis, simulation, construction and evaluation of electric circuits. Terminal Relationships. Kirchoff's laws. DC and AC steady state analysis. Node and mesh methods. Thevenin and Norton equivalent circuits. Transient behavior of first- and second-order circuits. Frequency response and transfer functions. Ideal op-amp circuits. Diode and transistor circuits.

0101	Wesley Lawson MW 12:30pm - 1:45pm Tu 12:00pm - 1:50pm Tu 11:00am - 11:50am	Seats (Total: 12) KEB 1110 AVW 1356 AVW 1356	 Lab Discussion

0102	Wesley Lawson	Seats (Total: 12)	
	MW 12:30pm - 1:45pm	KEB 1110	
	Tu 3:00pm - 4:50pm	AVW 1356	Lab
	Tu 2:00pm - 2:50pm	AVW 1356	Discussion
0103	Wesley Lawson	Seats (Total: 12)	
	MW 12:30pm - 1:45pm	KEB 1110	
	Th 12:00pm - 1:50pm	AVW 1356	Lab
	Th 11:00am - 11:50am	AVW 1356	Discussion
0104	Wesley Lawson	Seats (Total: 12)	
	MW 12:30pm - 1:45pm	KEB 1110	
	Th 3:00pm - 4:50pm	AVW 1356	Lab
	Th 2:00pm - 2:50pm	AVW 1356	Discussion
0105	Wesley Lawson	Seats (Total: 12)	
	MW 12:30pm - 1:45pm	KEB 1110	
	Tu 9:00am - 10:50am	AVW 1356	Lab
	Tu 8:00am - 8:50am	AVW 1356	Discussion
0106	Wesley Lawson	Seats (Total: 12)	
	MW 12:30pm - 1:45pm	KEB 1110	
	F 9:00am - 10:50am	AVW 1356	Lab
	F 8:00am - 8:50am	AVW 1356	Discussion
0201	Thomas Murphy	Seats (Total: 12)	
	TuTh 11:00am - 12:15pm	CHE 2108	
	M 12:00pm - 1:50pm	AVW 1356	Lab
	M 11:00am - 11:50am	AVW 1356	Discussion
0202	Thomas Murphy	Seats (Total: 12)	
	TuTh 11:00am - 12:15pm	CHE 2108	
	M 3:00pm - 4:50pm	AVW 1356	Lab
	M 2:00pm - 2:50pm	AVW 1356	Discussion
0203	Thomas Murphy	Seats (Total: 12)	
	TuTh 11:00am - 12:15pm	CHE 2108	
	W 3:00pm - 4:50pm	AVW 1356	Lab
	W 2:00pm - 2:50pm	AVW 1356	Discussion

0204	Thomas Murphy	Seats (Total: 12)	
	TuTh 11:00am - 12:15pm F 12:00pm - 1:50pm F 11:00am - 11:50am	CHE 2108 AVW 1356 AVW 1356	 Lab Discussion
0205	Thomas Murphy	Seats (Total: 12)	
	TuTh 11:00am - 12:15pm W 12:00pm - 1:50pm W 11:00am - 11:50am	CHE 2108 AVW 1356 AVW 1356	 Lab Discussion
0206	Thomas Murphy	Seats (Total: 12)	
	TuTh 11:00am - 12:15pm M 9:00am - 10:50am M 8:00am - 8:50am	CHE 2108 AVW 1356 AVW 1356	 Lab Discussion

ENEE222 **Elements of Discrete Signal Analysis**

(Perm req)

Credits: 4 Grading Method: Regular, Pass-Fail

Prerequisite: Minimum grade of C- in MATH141; and permission of ENGR-Electrical & Computer Engineering department. And minimum grade of C- in ENEE140; or minimum grade of C- in CMSC131. Restriction: Must be in one of the following programs (Engineering: Electrical; Engineering: Computer). Credit only granted for: ENEE222, ENEE241, or MATH242. Formerly: ENEE241.

Discrete-time and continuous-time signals, sampling. Linear transformers, orthogonal projections. Discrete Fourier Transform and its properties. Fourier Series. Introduction to discrete-time linear filters in both time and frequency domains.

0101	Eyad Abed	Seats (Total: 20)	
	MW 2:00pm - 3:15pm Th 9:00am - 9:50am Tu 9:00am - 9:50am	SPH 1301 EGR 0312 CHE 2116	 Lab Discussion
0102	Eyad Abed	Seats (Total: 20)	
	MW 2:00pm - 3:15pm Th 10:00am - 10:50am Tu 10:00am - 10:50am	SPH 1301 EGR 0312 CHE 2116	 Lab Discussion
0103	Eyad Abed	Seats (Total: 20)	
	MW 2:00pm - 3:15pm Th 8:00am - 8:50am Tu 8:00am - 8:50am	SPH 1301 EGR 0312 CHE 2116	 Lab Discussion

0201	Adrianos Papamarcou TuTh 12:30pm - 1:45pm W 9:00am - 9:50am F 9:00am - 9:50am	Seats (Total: 20) KEB 1110 KEB 2107 CSI 2118	 Lab Discussion
0202	Adrianos Papamarcou TuTh 12:30pm - 1:45pm W 10:00am - 10:50am F 10:00am - 10:50am	Seats (Total: 20) KEB 1110 KEB 2107 CSI 2118	 Lab Discussion
0203	Adrianos Papamarcou TuTh 12:30pm - 1:45pm W 8:00am - 8:50am F 8:00am - 8:50am	Seats (Total: 20) KEB 1110 KEB 2107 CSI 2118	 Lab Discussion

ENEE244 **Digital Logic Design**

(Perm req)

Credits: 3 Grading Method: Regular, Pass-Fail

Prerequisite: Must have completed or be concurrently enrolled in CMSC132 or ENEE150; and permission of ENGR-Electrical & Computer Engineering department. Restriction: Sophomore standing or higher; and must be in one of the following programs (Engineering: Computer; Engineering: Electrical).

The design and analysis of combinational and synchronous sequential systems comprising digital logic gates and flip-flop memory devices; underlying tools such as switching and Boolean algebras and Karnaugh map simplification of gate networks; design and use of decoders, multiplexers, encoders, adders, registers, counters, sequence recognizers, programmable logic arrays (PLAs), read-only memories (ROMS, PROMS), and similar devices. Arbitrary radix conversion.

0101	Manoj Franklin MW 3:30pm - 4:45pm F 8:00am - 8:50am	Seats (Total: 12) CHE 2108 EGR 1110	 Discussion
0102	Manoj Franklin MW 3:30pm - 4:45pm F 9:00am - 9:50am	Seats (Total: 12) CHE 2108 EGR 1110	 Discussion
0103	Manoj Franklin MW 3:30pm - 4:45pm F 10:00am - 10:50am	Seats (Total: 12) CHE 2108 CHM 0122	 Discussion

0104	Manoj Franklin MW 3:30pm - 4:45pm F 11:00am - 11:50am	Seats (Total: 12) CHE 2108 CHE 2116	 Discussion
0201	Jerry Wu TuTh 2:00pm - 3:15pm M 8:00am - 8:50am	Seats (Total: 12) KEB 1200 EGR 3111	 Discussion
0202	Jerry Wu TuTh 2:00pm - 3:15pm M 9:00am - 9:50am	Seats (Total: 12) KEB 1200 EGR 3111	 Discussion
0203	Jerry Wu TuTh 2:00pm - 3:15pm M 10:00am - 10:50am	Seats (Total: 12) KEB 1200 EGR 3111	 Discussion
0204	Jerry Wu TuTh 2:00pm - 3:15pm M 11:00am - 11:50am	Seats (Total: 12) KEB 1200 EGR 3111	 Discussion

ENEE245 **Digital Circuits and Systems Laboratory**

(Perm req)

Credits: 2 Grading Method: Regular, Pass-Fail

Prerequisite: Minimum grade of C- in ENEE244. And minimum grade of C- in ENEE150; or minimum grade of C- in CMSC132. And permission of ENGR-Electrical & Computer Engineering department. Restriction: Must be in one of the following programs (Engineering: Electrical; Engineering: Computer).

Introduction to basic measurement techniques and electrical laboratory equipment (power supplies, oscilloscopes, voltmeters, etc.). Design, construction, and characterization of digital circuits containing logic gates, sequential elements, oscillators, and digital integrated circuits. Introduction to digital design and simulation with the Verilog Hardware Description Language (HDL).

0101	Manoj Franklin W 10:00am - 10:50am Tu 8:00am - 10:50am	Seats (Total: 12) EGR 1202 AVW 1324	 Lab
0103	Manoj Franklin W 10:00am - 10:50am M 2:00pm - 4:50pm	Seats (Total: 12) EGR 1202 AVW 1324	 Lab

0104	Manoj Franklin W 10:00am - 10:50am W 11:00am - 1:50pm	Seats (Total: 12) EGR 1202 AVW 1324	Lab
0105	Manoj Franklin W 10:00am - 10:50am Th 11:00am - 1:50pm	Seats (Total: 12) EGR 1202 AVW 1324	Lab
0106	Manoj Franklin W 10:00am - 10:50am M 8:00am - 10:50am	Seats (Total: 12) EGR 1202 AVW 1324	Lab
0107	Manoj Franklin W 10:00am - 10:50am W 2:00pm - 4:50pm	Seats (Total: 12) EGR 1202 AVW 1324	Lab
0108	Manoj Franklin W 10:00am - 10:50am Tu 2:00pm - 4:50pm	Seats (Total: 12) EGR 1202 AVW 1324	Lab
0109	Manoj Franklin W 10:00am - 10:50am Th 8:00am - 10:50am	Seats (Total: 12) EGR 1202 AVW 1324	Lab
0110	Manoj Franklin W 10:00am - 10:50am Th 2:00pm - 4:50pm	Seats (Total: 12) EGR 1202 AVW 1324	Lab
0111	Manoj Franklin W 10:00am - 10:50am F 8:00am - 10:50am	Seats (Total: 12) EGR 1202 AVW 1324	Lab

Students must complete all 200-level ENEE courses (or be currently registered in them) before permission will be granted to register for 300- or 400-level ENEE courses.

ENEE303 **Analog and Digital Electronics**

(Perm req)

Credits: 3

Grading Method: Regular, Pass-Fail

Prerequisite: Minimum grade of C- in ENEE205; and permission of ENGR-Electrical & Computer Engineering department. Restriction: Must be in one of the following programs (Engineering: Electrical; Engineering: Computer).

Conceptual operation of transistors and diodes. Large and small signal operation of BJTs and MOSFETs. Basic transistor configurations. Logic circuits and semiconductor memory. Multi-transistor circuits including differential amplifiers and current mirrors. Frequency response.

0101	Agisilaos Iliadis MW 9:30am - 10:45am F 10:00am - 10:50am	Seats (Total: 25) ATL 2428 CHE 2136	Discussion
0201	Danilo Romero TuTh 11:00am - 12:15pm M 9:00am - 9:50am	Seats (Total: 25) KEB 1200 EGR 2116	Discussion
0202	Danilo Romero TuTh 11:00am - 12:15pm M 10:00am - 10:50am	Seats (Total: 25) KEB 1200 EGR 3114	Discussion

ENEE307 **Electronic Circuits Design Laboratory**

(Perm req)

Credits: 2 Grading Method: Regular, Pass-Fail

Prerequisite: Minimum grade of C- in ENEE303; and permission of ENGR-Electrical & Computer Engineering department. Restriction: Must be in one of the following programs (Engineering: Computer; Engineering: Electrical).

Students will design and test analog and digital circuits at the transistor level. FETs and BJTs will be covered. The laboratory experiments will be tightly coordinated with ENEE303 materials.

0101	Timothy Horiuchi M 10:00am - 10:50am M 2:00pm - 5:00pm	Seats (Total: 12) EGR 1202 AVW 1330	Lab
0102	Timothy Horiuchi M 10:00am - 10:50am Tu 8:00am - 11:00am	Seats (Total: 12) EGR 1202 AVW 1330	Lab
0103	Timothy Horiuchi M 10:00am - 10:50am Tu 2:00pm - 5:00pm	Seats (Total: 12) EGR 1202 AVW 1330	Lab
0104	Timothy Horiuchi M 10:00am - 10:50am Tu 11:00am - 2:00pm	Seats (Total: 12) EGR 1202 AVW 1330	Lab

0105	Timothy Horiuchi M 10:00am - 10:50am W 2:00pm - 5:00pm	Seats (Total: 12) EGR 1202 AVW 1330	 Lab
0108	Timothy Horiuchi M 10:00am - 10:50am W 8:00am - 11:00am	Seats (Total: 12) EGR 1202 AVW 1330	 Lab
0109	Timothy Horiuchi M 10:00am - 10:50am M 11:00am - 2:00pm	Seats (Total: 12) EGR 1202 AVW 1330	 Lab
0110	Timothy Horiuchi M 10:00am - 10:50am Th 11:00am - 2:00pm	Seats (Total: 12) EGR 1202 AVW 1330	 Lab
0111	Timothy Horiuchi M 10:00am - 10:50am F 8:00am - 11:00am	Seats (Total: 12) EGR 1202 AVW 1330	 Lab
0113	Timothy Horiuchi M 10:00am - 10:50am F 11:00am - 2:00pm	Seats (Total: 12) EGR 1202 AVW 1330	 Lab

ENEE313 **Introduction to Device Physics**

(Perm req)

Credits: 3 Grading Method: Regular, Pass-Fail

Prerequisite: Minimum grade of C- in ENEE205; and permission of ENGR-Electrical & Computer Engineering department. Restriction: Must be in one of the following programs (Engineering: Electrical; Engineering: Computer). Credit only granted for: ENEE312 or ENEE313.

Basic physics of devices including fields in solids, crystal structure, properties of electrons and holes. Current flow in Si using drift-diffusion model. Properties of the pn junction. Properties of devices including BJTs, FETs and their physical characteristics.

0101	Neil Goldsman MW 11:00am - 12:15pm F 9:00am - 9:50am	Seats (Total: 20) CHM 0115 EGR 2154	 Discussion

0102	Neil Goldsman MW 11:00am - 12:15pm F 10:00am - 10:50am	Seats (Total: 20) CHM 0115 EGR 2116	Discussion
0201	Danilo Romero TuTh 12:30pm - 1:45pm W 11:00am - 11:50am	Seats (Total: 20) JMP 2222 EGR 1102	Discussion
0202	Danilo Romero TuTh 12:30pm - 1:45pm W 12:00pm - 12:50pm	Seats (Total: 19) JMP 2222 EGR 3102	Discussion

ENEE313H **Introduction to Device Physics**

(Perm req)

Credits: 3 Grading Method: Regular, Pass-Fail

Prerequisite: Minimum grade of C- in ENEE205; and permission of ENGR-Electrical & Computer Engineering department. Restriction: Must be in one of the following programs (Engineering: Electrical; Engineering: Computer). Credit only granted for: ENEE312 or ENEE313.

Basic physics of devices including fields in solids, crystal structure, properties of electrons and holes. Current flow in Si using drift-diffusion model. Properties of the pn junction. Properties of devices including BJTs, FETs and their physical characteristics.

0101	Neil Goldsman MW 11:00am - 12:15pm F 11:00am - 11:50am	Seats (Total: 15) CHM 0115 EGR 1110	Discussion

ENEE322 **Signal and System Theory**

(Perm req)

Credits: 3 Grading Method: Regular, Pass-Fail

Prerequisite: Minimum grade of C- in MATH246; and minimum grade of C- in ENEE222; and permission of ENGR-Electrical & Computer Engineering department. Restriction: Must be in one of the following programs (Engineering: Computer; Engineering: Electrical).

Concept of linear systems, state space equations for continuous systems, time and frequency domain analysis of signals and linear systems. Fourier, Laplace and Z transforms. Application of theory to problems in electrical engineering.

0101	Gilmer Blankenship MW 2:00pm - 3:15pm Tu 10:00am - 10:50am	Seats (Total: 20) EGR 1108 ATL 2352	Discussion

0201	Adrianos Papamarcou TuTh 9:30am - 10:45am F 12:00pm - 12:50pm	Seats (Total: 20) EGR 1108 EGR 1104	Discussion
0202	Adrianos Papamarcou TuTh 9:30am - 10:45am F 1:00pm - 1:50pm	Seats (Total: 20) EGR 1108 EGR 1104	Discussion
0301	Alejandra Mercado MW 12:30pm - 1:45pm F 2:00pm - 2:50pm	Seats (Total: 19) CSI 2117 EGR 0135	Discussion
0302	Alejandra Mercado MW 12:30pm - 1:45pm F 3:00pm - 3:50pm	Seats (Total: 20) CSI 2117 EGR 0135	Discussion

ENEE324 **Engineering Probability**

(Perm req)

Credits: 3 Grading Method: Regular, Pass-Fail

Prerequisite: Minimum grade of C- in MATH246 and ENEE222; and permission of ENGR-Electrical & Computer Engineering department. Credit only granted for: BMGT231, STAT400 or ENEE324. Additional information: Electrical Engineering majors may NOT substitute STAT400 for ENEE324.

Axioms of probability; conditional probability and Bayes' rules; random variables, probability distribution and densities: functions of random variables: weak law of large numbers and central limit theorem. Introduction to random processes; correlation functions, spectral densities, and linear systems. Applications to noise in electrical systems, filtering of signals from noise, estimation, and digital communications.

ENEE majors (09090) only.

0101	Nuno Martins MW 2:00pm - 3:15pm F 12:00pm - 12:50pm	Seats (Total: 25) SPH 1302 CHM 2201	Discussion
0102	Nuno Martins MW 2:00pm - 3:15pm F 1:00pm - 1:50pm	Seats (Total: 25) SPH 1302 CHM 2201	Discussion
0201	Mark Shayman TuTh 9:30am - 10:45am W 12:00pm - 12:50pm	Seats (Total: 25) JMP 2121 EGR 1102	Discussion

0202	Mark Shayman TuTh 9:30am - 10:45am W 1:00pm - 1:50pm	Seats (Total: 25) JMP 2121 EGR 2154	Discussion
0301	Richard La TuTh 11:00am - 12:15pm M 2:00pm - 2:50pm	Seats (Total: 20) AJC 2132 EGR 3114	Discussion
0302	Richard La TuTh 11:00am - 12:15pm M 3:00pm - 3:50pm	Seats (Total: 20) AJC 2132 EGR 1110	Discussion

ENEE350 **Computer Organization**

(Perm req)

Credits: 3 Grading Method: Regular, Pass-Fail

Prerequisite: Minimum grade of C- in ENEE244; and 1 course with a minimum grade of C- from (ENEE150, CMSC132); and permission of ENGR-Electrical & Computer Engineering department. Restriction: Must be in one of the following programs (Engineering: Computer; Engineering: Electrical). Formerly: ENEE250.

Structure and organization of digital computers. Registers, memory, control and I/O. Data and instruction formats, addressing modes, assembly language programming. Elements of system software, subroutines and their linkages.

0101	Yavuz Oruc TuTh 3:30pm - 4:45pm F 1:00pm - 1:50pm	Seats (Total: 25) KEB 1110 EGR 3102	Discussion
0102	Yavuz Oruc TuTh 3:30pm - 4:45pm F 2:00pm - 2:50pm	Seats (Total: 25) KEB 1110 EGR 3102	Discussion
0201	Yavuz Oruc TuTh 12:30pm - 1:45pm F 2:00pm - 2:50pm	Seats (Total: 25) PHY 4221 EGR 3114	Discussion
0202	Yavuz Oruc TuTh 12:30pm - 1:45pm F 3:00pm - 3:50pm	Seats (Total: 25) PHY 4221 EGR 3114	Discussion

ENEE351 **Algorithms and Data Structures**

(Perm req)

Credits: 4

Grading Method: Regular, Pass-Fail

Prerequisite: Minimum grade of C- in ENEE150 and ENEE244. Restriction: Permission of ENGR-Electrical & Computer Engineering department; and must be in the Computer Engineering Minor. Credit only granted for: ENEE351 or CMSC351.

Introduction to fundamental concepts in computer engineering, including topics in discrete math, data structures and algorithms. The course will also include a hands-on programming component. This course will provide students with the tools to design modular, time and space-efficient algorithms for real-world problems.

0101	Charalampos Papamanthou	Seats (Total: 20)	
	MW 12:30pm - 1:45pm	EGR 2116	
	Th 1:00pm - 1:50pm	AVW 1442	Lab
	Tu 1:00pm - 1:50pm	AVW 1442	Discussion

ENEE359F **Intermediate Topics in Computer Engineering; Advanced FPGA System Design using Verilog**

(Perm req)

Credits: 3

Grading Method: Regular, Pass-Fail, Audit

Selected intermediate level topics in computer engineering.

Prerequisite: permission of department.

0101	Jerry Wu	Seats (Total: 12)	
	Tu 3:30pm - 4:45pm	AVW 1454	
	Th 2:00pm - 5:00pm	AVW 1454	Lab

ENEE380 **Electromagnetic Theory**

(Perm req)

Credits: 3

Grading Method: Regular, Pass-Fail

Prerequisite: Minimum grade of C- in ENEE205; and minimum grade of C- in MATH241, PHYS270, and PHYS271; and permission of ENGR-Electrical & Computer Engineering department. Restriction: Must be in Engineering: Electrical program.

Introduction to electromagnetic fields. Coulomb's law, Gauss's law, electrical potential, dielectric materials capacitance, boundary value problems, Biot-Savart law, Ampere's law, Lorentz force equation, magnetic materials, magnetic circuits, inductance, time varying fields and Maxwell's equations.

ENEE majors (09090) only. Department Permission Required.

0101	Edward Ott TuTh 2:00pm - 3:15pm M 3:00pm - 3:50pm	Seats (Total: 25) EGR 1108 EGR 3114	 Discussion
0102	Edward Ott TuTh 2:00pm - 3:15pm M 4:00pm - 4:50pm	Seats (Total: 25) EGR 1108 EGR 3114	 Discussion

ENEE381 **Electromagnetic Wave Propagation**

(Perm req)

Credits: 3 Grading Method: Regular, Pass-Fail

Prerequisite: Minimum grade of C- in ENEE380; and permission of ENGR-Electrical & Computer Engineering department. Restriction: Must be in Engineering: Electrical program.

The electromagnetic spectrum: Review of Maxwell's equations; the wave equation potentials, Poynting's theorem, relationship between circuit theory and fields; propagation of electromagnetic waves in homogeneous media and at interfaces; transmission line theory, waveguides, radiation and antennas.

0101	Yanne Chembo MW 3:30pm - 4:45pm Th 2:00pm - 2:50pm	Seats (Total: 20) EGR 1108 CHE 2140	 Discussion
0102	Yanne Chembo MW 3:30pm - 4:45pm Th 3:00pm - 3:50pm	Seats (Total: 20) EGR 1108 ATL 1106	 Discussion
0201	Wesley Lawson TuTh 2:00pm - 3:15pm M 12:00pm - 12:50pm	Seats (Total: 20) EGR 0108 EGR 1102	 Discussion
0202	Wesley Lawson TuTh 2:00pm - 3:15pm M 1:00pm - 1:50pm	Seats (Total: 25) EGR 0108 EGR 3102	 Discussion

ENEE381H **Electromagnetic Wave Propagation**

(Perm req)

Credits: 3 Grading Method: Regular, Pass-Fail

Prerequisite: Minimum grade of C- in ENEE380; and permission of ENGR-Electrical & Computer Engineering department. Restriction: Must be in Engineering: Electrical program.

The electromagnetic spectrum: Review of Maxwell's equations; the wave equation potentials, Poynting's theorem, relationship between circuit theory and fields; propagation of electromagnetic waves in homogeneous media and at interfaces; transmission line theory, waveguides, radiation and antennas.

0101	Wesley Lawson	Seats (Total: 15)	
	TuTh 2:00pm - 3:15pm	EGR 0108	
	M 2:00pm - 2:50pm	EGR 1110	Discussion

ENEE408A **Capstone Design Project:Microprocessor-Based Design**

(Perm req)

Credits: 3 Grading Method: Regular, Pass-Fail, Audit CORE: CS

Prerequisite: ENEE440. This course provides a team-based experience in the design and implementation of a microprocessor-based system to solve a real-world problem. A product specification or client requirement forms the basis for the student teams development of an initial technical design specification. The team then divides into smaller groups for the parallel development of hardware and software subsystems of the product device. Upon completion and test of the various subsystems, software and hardware components are integrated into the system prototype and the system is tested and documented.

0101	William Hawkins	Seats (Total: 17)	
	Th 9:30am - 10:45am	EGR 3114	
	TBA	AVW 1424	Lab

ENEE408D **Capstone Design Project: Mixed Signal VLSI Design**

(Perm req)

Credits: 3 Grading Method: Regular, Pass-Fail CORE: CS

Prerequisite: ENEE303, ENEE307, and ENEE313. This course covers the design of very large scale integrated (VLSI) circuits including analysis and simulation of digital and analog circuits, layout, and component selection. The material involves extensive use of Computer-Aided Design (CAD) tools for circuit simulation and layout and draws upon knowledge from 300-level EE courses Following current industry paradigms, students work in teams to design, thoroughly simulate, and specify physical layout of mixed signal VLSI circuits prior to their fabrication in a foundry.

Click here for more course information.

0101	Pamela Abshire	Seats (Total: 30)	
	TuTh 9:30am - 10:20am	KEB 2107	
	F 11:00am - 2:00pm	KEB 2107	Discussion

ENEE408G **Capstone Design Project: Multimedia Signal Processing**

(Perm req) Credits: 3 Grading Method: Regular, Pass-Fail CORE: CS

Prerequisites: ENEE420 or 425. An introductory course on multimedia signal processing bringing real-world design experience to students using state-of-the-art multimedia software and hardware. Lectures will provide basic theories and principles on multimedia compression, processing, communications, security, and recognition.

Click here for more course information.

0101	Shihab Shamma	Seats (Total: 12)	
	M 9:30am - 10:45am	KEB 2107	
	Tu 12:00pm - 2:50pm	KEB 2107	Lab

ENEE408I **Capstone Design Project: Autonomous Control of Interacting Robots**

(Perm req) Credits: 3 Grading Method: Regular, Pass-Fail CORE: CS

Prerequisite: ENEE322; Electrical or Computer Engineering seniors. Co-requisite: ENEE460 or ENEE463. The course involves students in the design,development, and application of autonomous robotic systems. The robots are 4 wheeled vehicles with on-board sensors (cameras, acoustic sensors),computers and wireless communications capabilities. The students work in teams to program the robots to accomplish a task individually and in teams of 2 or more more robots. Applications vary from semester to semester, including racing with passing, soccer, search and identify.

0101	Gilmer Blankenship	Seats (Total: 19)	
	M 10:00am - 10:50am	EGR 3102	
	Tu 11:00am - 1:50pm	KEB 3209	Lab

ENEE408R **Capstone Design Project; Electric Bikes**

(Perm req) Credits: 3 Grading Method: Regular, Pass-Fail

Culmination of prior course work in electrical and computer engineering. Utilization of modern design tools and methodologies for the design of components or systems under realistic constraints, with particular emphasis on teamwork and oral/written communication. Areas in which projects are currently offered include: microprocessor-based systems, digital systems, VLSI design (both digital and mixed-signal), and optical systems.

Prerequisites: ENEE303, ENEE322, ENEE150 or CMSC216. Electrical or Computer Engineering senior status. Recommended Co-requisites: ENEE474, ENEE463, ENEE426, ENEE440, or ENEE459V. A capstone course on the design of safe, light and utilitarian electric bikes for personal transportation. It is systems level and will make use of a combination of off-the-shelf and custom-made components. These vehicles must meet either one of these design challenges such as extended range superior terrain climbing capability. In addition, the vehicle must contain a plethora of wireless sensors for safety and convenience, such as GPS, on-board cameras, theft deterrent systems, communications and navigation. It must be able to operate under different road conditions, at all hours and even in slightly inclement weather.

0101	Yongzhang Leng, Romel Gomez	Seats (Total: 30)	
	Th 5:00pm - 6:50pm	KEB 1200	
	F 9:00am - 10:50am	KEB 1200	Lab

ENEE408T **Capstone Design Project; Accelerator Physics - Building the Maryland 5 MeV Cyclotron**

(Perm req)

Credits: 3 Grading Method: Regular, Pass-Fail

Culmination of prior course work in electrical and computer engineering. Utilization of modern design tools and methodologies for the design of components or systems under realistic constraints, with particular emphasis on teamwork and oral/written communication. Areas in which projects are currently offered include: microprocessor-based systems, digital systems, VLSI design (both digital and mixed-signal), and optical systems.

Prerequisite: ENEE380. Corequisite: ENEE381 or PHYS411; or permission of instructor. Restriction: Permission of ECE department. Cyclotrons are versatile accelerators whose use, because of an unsurpassed economic footprint, continues to expand in basic research, industry, medicine, and education. They also capture most of fundamentalphysics and technology of the biggest particle accelerators, such as CERN's LHC. This course provides students with a hands-on introduction to fundamental beam physics as well as the technology of cyclotrons, their design, commissioning, and operation. Students of this course will be designing and building a cyclotron.

0101	Brian Beaudoin, Timothy Koeth	Seats (Total: 12)	
	TuTh 9:30am - 10:45am	EGR 1102	
	F 9:00am - 12:00pm	EGR 0312	Lab

ENEE408U **Capstone Design Project; Unmanned Air Vehicle Design**

(Perm req)

Credits: 3 Grading Method: Regular, Pass-Fail

Culmination of prior course work in electrical and computer engineering. Utilization of modern design tools and methodologies for the design of components or systems under realistic constraints, with particular emphasis on teamwork and oral/written communication. Areas in which projects are currently offered include: microprocessor-based systems, digital systems, VLSI design (both digital and mixed-signal), and optical systems.

Prerequisites: Completion of ENEE303 and ENEE381 with "C-" or better; OR Permission of the ECE Department. This proposed course will provide a team-based experience in the design and implementation of an electronics-based system to solve an unmanned vehicle problem. The UASTS technical challenge is the basis for the team's development of an initial technical design specification. Groups within the team pursue the parallel development of hardware and software subsystems of the product or device. Upon completion and test of the various subsystems, software and hardware components are integrated into the system prototype and the system is tested and documented.

Contact department for information to register for this course.

ENEE413 **Advanced Electronic Devices**

(Perm req)

Credits: 3

Grading Method: Regular, Pass-Fail

Prerequisite: Minimum grade of C- in ENEE303. Restriction: Must be in one of the following programs (Engineering: Computer; Engineering: Electrical) ; and permission of ENGR-Electrical & Computer Engineering department. Credit only granted for: ENEE413 or ENEE480. Formerly: ENEE480.

Advanced devices and their physical operation, providing a thorough description of those parts not usually covered in introductory electronics courses. These include Schottky and tunnel junctions, negative resistance devices used in wireless communication, homo-structure compound semiconductor transistors, hetero-structure (quantum effect) transistors, non-volatile memory devices, photonic devices such as LEDs and solid-state lasers, solar cells, photo-detectors and camera imagers, as well as bio-related components. Special consideration will be given to achieve an understanding of noise processes that limit electronic device performance. In all cases, system-level applications will be illustrated.

0101	Kevin Daniels	Seats (Total: 30)
	MW 12:30pm - 1:45pm	EGR 3106

ENEE417 **Microelectronics Design Laboratory**

(Perm req)

Credits: 2

Grading Method: Regular, Pass-Fail

Prerequisite: Minimum grade of C- in ENEE303; and minimum grade of C- in ENEE307; and must have earned a minimum grade of regular (letter) C- in all required 200-level ENEE courses; and permission of ENGR-Electrical & Computer Engineering department. Restriction: Must be in one of the following programs (Engineering: Electrical; Engineering: Computer).

Students design and build fairly sophisticated circuits, mainly composed of discrete transistors and integrated circuits. Many of the projects are designed to require that students synthesize from what they have learned in many of the disciplines in electrical engineering. Students learn they can actually use their knowledge to build something very practical, which may include a high-fidelity amplifier, a radio, a memory cell, a transmitter, etc.

0101	Romel Gomez	Seats (Total: 8)	
	Tu 2:00pm - 2:50pm	AVW 1334	
	W 2:00pm - 5:00pm	AVW 1334	Lab

ENEE425 **Digital Signal Processing**

(Perm req)

Credits: 3 Grading Method: Regular, Pass-Fail

Prerequisite: ENEE322; and completion of all lower-division technical courses in the EE curriculum.

Sampling as a modulation process; aliasing; the sampling theorem; the Z-transform and discrete-time system analysis; direct and computer-aided design of recursive and nonrecursive digital filters; the Discrete Fourier Transform (DFT) and Fast Fourier Transform (FFT); digital filtering using the FFT; analog-to-digital and digital-to analog conversion; effects of quantization and finite-word-length arithmetic.

ENEE majors (09090) only.

0101	Behtash Babadi	Seats (Total: 30)
	MW 3:30pm - 4:45pm	AJC 2121

ENEE426 **Communication Networks**

(Perm req)

Credits: 3 Grading Method: Regular, Pass-Fail

Prerequisite: ENEE324; and completion of all lower-division technical courses in the EE curriculum. Restriction: Must be in Engineering: Electrical program.

The main design issues associated with computer networks, satellite systems, radio nets, and general communication networks. Application of analytical tools of queuing theory to design problems in such networks. Review of proposed architectures and protocols.

0101	Mark Shayman	Seats (Total: 30)
	TuTh 3:30pm - 4:45pm	AJC 2119

ENEE428 **Communications Design Laboratory**

(Perm req)

Credits: 2

Grading Method: Regular,
Pass-Fail

EE capstone design course. Exploring the signal processing and communication systems theoretical concepts presented in ENEE 420 Communication Systems and ENEE 425 Digital Signal Processing by implementing them on actual DSP based hardware in real time.

Prerequisite: ENEE324; Corequisite: ENEE425 or ENEE420. This course explores the signal processing and communication system theoretical concepts presented in ENEE 322 Signals and Systems, ENEE 324 Engineering Probability, ENEE 420 Communication Systems, and ENEE 425 Digital Signal Processing by implementing them on actual hardware in real time. In the process, students gain experience using equipment commonly used in industry, such as, oscilloscopes, spectrum analyzers, error rate test sets, channel simulators, digital signal processors, analog-to-digital and digital-to-analog converters, and signal generators. The experiments are based on using a Texas Instruments TMS320C6713 DSP Starter Kit (DSK) stand-alone board that communicates with the PC through a USB port.

0101	Steven Tretter	Seats (Total: 8)	
	W 10:00am - 10:50am	AVW 1362	
	W 2:00pm - 5:00pm	AVW 1362	Lab

ENEE439D **Topics in Signal Processing; Design Experience in Machine Learning**

(Perm req)

Credits: 3

Grading Method: Regular,
Pass-Fail

Selected topics of current importance in signal processing.

Prerequisite: Completion of the following courses with a"C-" or better: ENEE439M; ENEE324 or STAT400. Restriction: Permission of ECE Department required. A design course bringing real-world design experience to students in a team setting. It draws synergy between machine learning, data science, sensing and signal processing, and other engineering skills and knowledge.

Contact department for information to register for this course.

ENEE439M **Topics in Signal Processing; Machine Learning**

(Perm req)

Credits: 3

Grading Method: Regular,
Pass-Fail

Selected topics of current importance in signal processing.

Prerequisite: ENEE324 or STAT400, Programming skills in Matlab, C+, or Python. Restriction: permission of Electrical & Computer Engineering Department. Students taking the course as CMSC498M must have completed CMSC330 and CMSC351 with a minimum grade of C-. A broad introduction to machine learning and statistical pattern recognition. Topics include: Supervised learning (Bayesian learning and classifier, parametric/non-parametric learning, discriminant functions, support vector machines, neural networks, deep learning networks); Unsupervised learning (clustering, dimensionality reduction, autoencoders). The course will also discuss recent applications of machine learning, such as computer vision, data mining, autonomous navigation, and speech recognition.

0101	Sennur Ulukus	Seats (Total: 40)
	MW 2:00pm - 3:15pm	CSI 2117

ENEE440 **Microprocessors**

(Perm req)

Credits: 3 Grading Method: Regular, Pass-Fail

Prerequisite: ENEE350; and completion of all lower division technical courses in the EE curriculum. Restriction: Must be in one of the following programs (Engineering: Computer; Engineering: Electrical).

Microprocessor architectures, instruction sets, and applications. Bus structures, memory, I/O interfacing. Assembly language programming, LSI device configuration, and the embedding of microprocessors in systems.

0101	William Hawkins	Seats (Total: 30)
	TuTh 12:30pm - 1:45pm	EGR 2154

ENEE445 **Computer Laboratory**

(Perm req)

Credits: 2 Grading Method: Regular, Pass-Fail

Prerequisite: Minimum grade of C- in ENEE205; or minimum grade of C- in ENEE206. And minimum grade of C- in ENEE350; and must have earned a minimum grade of regular (letter) C- in all 200-level ENEE courses; and permission of ENGR-Electrical & Computer Engineering department. Restriction: Must be in one of the following programs (Engineering: Computer; Engineering: Electrical).

This laboratory course focuses on the hardware/software interface in computer systems. Hand-on experiments are used to teach design, construction, analysis, and measurement of both hardware and software for embedded systems. Projects emphasize using microcontrollers for control, sensing, and communication through various I/O devices.

0101	William Hawkins	Seats (Total: 12)	
	Tu 9:30am - 10:45am	EGR 3114	
	Th 2:00pm - 5:00pm	AVW 1424	Lab

ENEE446 **Digital Computer Design**

(Perm req)

Credits: 3

Grading Method: Regular, Pass-Fail

Prerequisite: ENEE350; and completion of all lower-division technical courses in the EE curriculum. Restriction: Permission of ENGR-Electrical & Computer Engineering department. Credit only granted for: ENEE446 or CMSC411.

Hardware design of digital computers. Arithmetic and logic units, adders, multipliers and dividers. Floating-point arithmetic units. Bus and register structures. Control units, both hardwired and microprogrammed. Index registers, stacks, and other addressing schemes. Interrupts, DMA and interfacing.

ENEE majors (09090) only.

0101	Donald Yeung	Seats (Total: 60)	
	MW 3:30pm - 4:45pm	CSI 3117	

ENEE447 **Operating Systems**

(Perm req)

Credits: 4

Grading Method: Regular, Pass-Fail

Prerequisite: 1 course with a minimum grade of C- from (CMSC414, CMSC417, CMSC420, CMSC430, CMSC433, CMSC435, ENEE440, ENEE457); and permission of ENGR-Electrical & Computer Engineering department; and (ENEE350, CMSC330, and CMSC351). Restriction: Must be in Engineering: Computer program; and permission of ENGR-Electrical & Computer Engineering department. Credit only granted for: ENEE447, CMSC412, or ENEE459S. Formerly: ENEE459S.

The course will present the theory, design, implementation and analysis of computer operating systems. Through classroom lectures, homework, and projects, students learn the fundamentals of concurrency, process management, interprocess communication and synchronization, job scheduling algorithms, memory management, input-output devices, file systems, and protection and security in operating systems. Optional topics may include communications protocols, computer security, and real-time operating systems. The lectures will be complemented with a significant level of programming, bringing up a simple operating system from scratch, concurrently as the topics are discussed in lecture. A weekly recitation section will provide TA support and an informal laboratory atmosphere. Each student will have their own board, so development will be done largely outside the classroom at each student's pace.

0101	Manoj Franklin	Seats (Total: 16)	
	TuTh 11:00am - 12:15pm	EGR 1108	
	M 12:00pm - 1:50pm	AVW 1442	Lab

0102	Manoj Franklin TuTh 11:00am - 12:15pm M 2:00pm - 3:50pm	Seats (Total: 16) EGR 1108 AVW 1442	 Lab
0103	Manoj Franklin TuTh 11:00am - 12:15pm W 12:00pm - 1:50pm	Seats (Total: 16) EGR 1108 AVW 1442	 Lab
0104	Manoj Franklin TuTh 11:00am - 12:15pm W 2:00pm - 3:50pm	Seats (Total: 16) EGR 1108 AVW 1442	 Lab

ENEE456 **Cryptography**

(Perm req)

Credits: 3 Grading Method: Regular, Pass-Fail

Prerequisite: (CMSC106, CMSC131, or ENEE150; or equivalent programming experience); and (2 courses from (CMSC330, CMSC351, ENEE324, or ENEE380); or any one of these courses and a 400-level MATH course, or two 400-level MATH courses). Or permission of instructor. Also offered as: CMSC456, MATH456. Credit only granted for: MATH456, CMSC456 or ENEE456.

The theory, application, and implementation of mathematical techniques used to secure modern communications. Topics include symmetric and public-key encryption, message integrity, hash functions, block-cipher design and analysis, number theory, and digital signatures.

0101	Nathan Manning MWF 11:00am - 11:50am	Seats (Total: 75) CSI 3117	
0201	Gorjan Alagic TuTh 2:00pm - 3:15pm	Seats (Total: 60) IRB 0318	
0301	Dana Dachman-Soled MW 2:00pm - 3:15pm	Seats (Total: 60) CSI 3117	

ENEE461 **Control Systems Laboratory**

(Perm req)

Credits: 3 Grading Method: Regular, Pass-Fail

Prerequisite: Minimum grade of C- in ENEE205; and minimum grade of C- in ENEE322; and must have earned a minimum grade of regular (letter) C- in all required 200-level ENEE courses; and permission of ENGR-Electrical & Computer Engineering department. Restriction: Must be in one of the following programs (Engineering: Computer; Engineering: Electrical). Credit only granted for: ENEE461, ENME461, or ENME489N.

Students will design, implement, and test controllers for a variety of systems. This will enhance their understanding of feedback control and familiarize them with the characteristics and limitations of real control devices. They will also complete a small project. This will entail writing a proposal, purchasing parts for their controller, building the system, testing it, and writing a final report describing what they have done.

Prerequisite: permission of department. Cross-listed with ENME461. Credit granted for ENME461 or ENEE461.

0101	William Levine MW 9:00am - 9:50am M 1:00pm - 3:50pm	Seats (Total: 14) KEB 1110 KEB 3209	 Lab
0102	William Levine MW 9:00am - 9:50am W 1:00pm - 3:50pm	Seats (Total: 14) KEB 1110 KEB 3209	 Lab
0103	William Levine MW 9:00am - 9:50am F 9:00am - 11:50am	Seats (Total: 14) KEB 1110 KEB 3209	 Lab
0104	William Levine MW 9:00am - 9:50am W 10:00am - 12:50pm	Seats (Total: 14) KEB 1110 KEB 3209	 Lab

ENEE463 **Digital Control Systems**

(Perm req)

Credits: 3 Grading Method: Regular, Pass-Fail

Prerequisite: ENEE322; and completion of lower-division technical courses in the EE curriculum. Restriction: Must be in one of the following programs (Engineering: Electrical; Engineering: Computer). Formerly: ENEE469E.

Introduction to techniques for the analysis and design of linear control systems and implementation of control systems using digital technology. Topics include linearization, solution of linear equations, z-transforms and Laplace transforms, design of linear controllers, optimal control, and digital implementation of control designs. Students will use MATLAB for the solution of problems and the design of control systems.

0101	Eyad Abed MW 11:00am - 12:15pm	Seats (Total: 35) EGR 3106	

ENEE473 **Electrical Machines Laboratory**

(Perm req)

Credits: 2 Grading Method: Regular, Pass-Fail

Prerequisite: Minimum grade of C- in ENEE205; and must have earned a minimum grade of regular (letter) C- in all required 200-level ENEE courses; and permission of ENGR-Electrical & Computer Engineering department. Recommended: ENEE322. Restriction: Must be in one of the following programs (Engineering: Electrical; Engineering: Computer).

Experiments involving single and three phase transformers, induction machines, synchronous machines and D.C. machines.

0101	David Bowen F 1:00pm - 1:50pm F 2:00pm - 5:00pm	Seats (Total: 12) JMP 1109 AVW 1360	 Lab
0102	David Bowen F 1:00pm - 1:50pm F 9:00am - 12:00pm	Seats (Total: 12) JMP 1109 AVW 1360	 Lab

ENEE475 **Power Electronics**

(Perm req)

Credits: 3 Grading Method: Regular, Pass-Fail

Prerequisite: Minimum grade of C- in ENEE303; and must have earned a minimum grade of regular (letter) C- in all required 200-level ENEE courses; and permission of ENGR-Electrical & Computer Engineering department. Restriction: Must be in one of the following programs (Engineering: Electrical; Engineering: Computer).

This course is suitable for undergraduate and graduate students who want to learn the basic principles of power electronics and its applications. Special emphasis is placed on interdisciplinary nature of power electronics. Strong and intimate connections between power electronics and circuit theory, electronic circuits, semiconductor devices, electric power, magnetic, motor drives and control are stressed.

0101	Isaak Mayergoyz TuTh 2:00pm - 3:15pm	Seats (Total: 75) KEB 1110	

ENEE489E **Topics in Electrophysics; Wireless Energy Transfer: Principles, Technologies, and Applications**

(Perm req)

Credits: 3

Grading Method: Regular, Pass-Fail

Selected topics of current importance in electrophysics.

Prerequisites: Completion of ENEE303 and ENEE381 with "C-" or better; OR Permission of the ECE Department. This course will deal with the current state-of-the-art in wireless energy transfer technology. It will elucidate the electromagnetic principles in the design of the receiving antenna and will discuss the various schemes to achieve optimal coupling in the near- and far-field regimes. The basic principles of power and radio electronics applied to the design of power delivery circuits will also be covered in this course. The use of simulation software such as FEKO and SPICE for computational electromagnetics and electronic simulations, respectively, will be used in the design of wireless power delivery systems. Modern commercial applications of wireless energy transfer such as wireless charging of UAV drones will be discussed.

Contact department for information to register for this course.

ENEE489M **Topics in Electrophysics; Active Microwave Devices Design & Testing Laboratory**

(Perm req)

Credits: 3

Grading Method: Regular, Pass-Fail

Selected topics of current importance in electrophysics.

Prerequisite: Completion of ENEE381 with a minimum grade of a "C-" or Permission from ECE Department. Design, fabrication, and testing of active RF and microwave devices. These devices include detectors, power and low-noise amplifiers, local oscillators, frequency multipliers, mixers, and a culminating assignment to design asuperheterodyne receiver. The theory covered to develop and characterize these devices include impedance matching, scattering parameters, quality factor and bandwidth, stability, gain, noise figure, and nonlinear effects. Students will become proficient in simulating designs using Keysight Advanced Design System (ADS).

0101	Thomas Antonsen	Seats (Total: 15)	
	M 11:00am - 11:50am	AVW 1442	
	W 9:00am - 11:50am	AVW 1442	Lab

ENEE489Q **Topics in Electrophysics; Quantum Phenomena in Electrical Engineering**

(Perm req)

Credits: 3

Grading Method: Regular, Pass-Fail

Selected topics of current importance in electrophysics.

Prerequisite: Completion of ENEE380 with a minimum grade of a "C-." Completion of all lower-division technical courses in EE curriculum. Co-requisites: ENEE313 and ENEE381. The course provides fundamental understanding of quantum mechanical principles for electrical engineering and nanotechnology applications. It is designed to acquaint electrical and computer engineering students with concepts on which modern electronic and optical devices are based. Topics include: wave phenomena and wave-particle duality, photons and quantum states, entanglement, paradoxes, quantum crytography, Schrodingers equation in 1-dimension, bound states, tunneling, scattering problems, optoelectronic and electronic devices and superconducting Josephson's junctions.

0101	Julius Goldhar	Seats (Total: 30)
	TuTh 3:30pm - 4:45pm	CHE 2136

ENEE489Y **Topics in Electrophysics; Introduction to US Navy Mission Systems Testing**

(Perm req)

Credits: 3 Grading Method: Regular, Pass-Fail

Selected topics of current importance in electrophysics.

Prerequisites: Completion ENEE322, ENEE324, and ENEE381 with "C-" or better; OR Permission of the ECE Department. This course is a survey treatment of the engineering theory and operation of a variety of US Navy mission systems installed on US Navy aircraft. The systems covered will be a range of technical discipline areas including communications, navigation, electro-optical, radar, and electronic-warfare systems. The course will discuss fundamental engineering theory of system operations and will include topical coverage of electromagnetic principles, communication theory, data networks, navigation principles, and both electro-optical and radar physics. Additional system discussions will include Unmanned Aviation Systems and electronic-warfare systems.

Contact department for information to register for this course.

ENEE496 **Lasers and Electro-optic Devices**

(Perm req)

Credits: 3 Grading Method: Regular, Pass-Fail

Prerequisite: ENEE381; and completion of all lower-division technical courses in the EE curriculum. Restriction: Must be in one of the following programs (Engineering: Computer; Engineering: Electrical).

Modern physical optics: Gaussian beams, optical resonators, optical waveguides; theory of laser oscillation, rate equations; common laser systems. Selected modern optoelectronic devices like detectors and modulators. Role of lasers and optoelectronics in modern technology.

0101	Mario Dagenais	Seats (Total: 30)
	MW 3:30pm - 4:45pm	EGR 3106

ENEE498K **Topics in Electrical Engineering; Advanced Design Lab on Electric Cars**

(Perm req)

Credits: 3

Grading Method: Regular, Pass-Fail

Selected topics of current importance in electrical engineering.

Prerequisite: completion of ENEE303 with a minimum grade of a "C-" and senior standing in Electrical or Computer Engineering. Recommended prerequisites: ENEE476, ENEE475, ENEE408K, or ENME408. An advanced laboratory course, with the purpose of designing a formula type electrical car with the objective of participating in Formula SAE competition. This is a systems level laboratory course, which will eventually use a combination of off-the-shelf components. The major components inside the electric car include electric motor, power inverter, drive circuit, battery, battery management system, sensors and encoders and charger. The course will provide various hands-on experiences involving different experiments on motors, inverters, dc/dc converters, and their overall integration, verification and testing on the environment of a real car. Through this laboratory course, the students will be exposed to the iterative design process forrealizing better system performance.

0101	Apurv Kumar Yadav	Seats (Total: 25)	
	M 11:00am - 11:50am	AJC 2132	
	MW 5:00pm - 6:15pm	CSI 2118	Lab

ENEE499 **Senior Projects in Electrical and Computer Engineering**

(Perm req)

Credits: 1-5

Grading Method: Regular, Pass-Fail

The purpose is to provide students with an opportunity to engage in independent research projects on advanced electrical and computer engineering topics. Projects are selected by students and supervised by faculty and other qualified mentors. While students may be required to acquire new skills or information in the course of completing a 499 project, the focus is to conduct an independent investigation of a technical theme by the student. The project may be used to satisfy the advanced lab requirement if it is approved as a primarily - experimental research project. In that case, the student will enroll in ENEE499L.

ENEE majors (09090) only.

Contact department for information to register for this course.

ENEE499L **Senior Projects in Electrical and Computer Engineering**

(Perm req)

Credits: 1-3

Grading Method: Regular, Pass-Fail

The purpose is to provide students with an opportunity to engage in independent research projects on advanced electrical and computer engineering topics. Projects are selected by students and supervised by faculty and other qualified mentors. While students may be required to acquire new skills or information in the course of completing a 499 project, the focus is to conduct an independent investigation of a technical theme by the student. The project may be used to satisfy the advanced lab requirement if it is approved as a primarily - experimental research project. In that case, the student will enroll in ENEE499L.

Contact department for information to register for this course.

ENEE499R **Senior Projects in Electrical and Computer Engineering**

(Perm req)

Credits: 1-3 Grading Method: Regular, Pass-Fail

The purpose is to provide students with an opportunity to engage in independent research projects on advanced electrical and computer engineering topics. Projects are selected by students and supervised by faculty and other qualified mentors. While students may be required to acquire new skills or information in the course of completing a 499 project, the focus is to conduct an independent investigation of a technical theme by the student. The project may be used to satisfy the advanced lab requirement if it is approved as a primarily - experimental research project. In that case, the student will enroll in ENEE499L.

Contact department for information to register for this course.

ENEE499T **Senior Projects in Electrical and Computer Engineering; Undergraduate Teaching Experience**

(Perm req)

Credits: 1-2 Grading Method: Regular, Pass-Fail

The purpose is to provide students with an opportunity to engage in independent research projects on advanced electrical and computer engineering topics. Projects are selected by students and supervised by faculty and other qualified mentors. While students may be required to acquire new skills or information in the course of completing a 499 project, the focus is to conduct an independent investigation of a technical theme by the student. The project may be used to satisfy the advanced lab requirement if it is approved as a primarily - experimental research project. In that case, the student will enroll in ENEE499L.

Contact department for information to register for this course.

ENEE601 **Semiconductor Devices and Technology**

Credits: 3 Grading Method: Regular, Audit, Sat-Fail

Recommended: ENEE413 and ENEE600. Credit only granted for: ENEE601 or ENEE697. Formerly: ENEE697.

The principles, structures and characteristics of semiconductor devices. Technology and fabrication of semiconductor devices.

0101	Agisilaos Iliadis	Seats (Total: 30)
	MW 12:30pm - 1:45pm	JMP 1202

ENEE611 **Integrated Circuit Design and Analysis**

Credits: 3 Grading Method: Regular, Audit, Sat-Fail

Recommended: ENEE610. Credit only granted for: ENEE611 or ENEE696. Formerly: ENEE696.

Active and passive elements used in semiconductor structures. Design application of linear and digital integrated circuits.

0101	Timothy Horiuchi MW 3:30pm - 4:45pm	Seats (Total: 30) EGR 0135

ENEE621 **Estimation and Detection Theory**

Credits: 3 Grading Method: Regular, Audit, Sat-Fail

Prerequisite: ENEE620; or students who have taken courses with comparable content may contact the department.

Estimation of unknown parameters, Cramer-Rao lower bound; optimum (map) demodulation; filtering, amplitude and angle modulation, comparison with conventional systems; statistical decision theory Bayes, minimax, Neyman/Pearson, Criteria-68 simple and composite hypotheses; application to coherent and incoherent signal detection; M-ary hypotheses; application to uncoded and coded digital communication systems.

0101	Anthony Ephremides MW 9:30am - 10:45am	Seats (Total: 30) AJC 2119

ENEE627 **Information Theory**

Credits: 3 Grading Method: Regular, Audit, Sat-Fail

Prerequisite: ENEE620. Credit only granted for: ENEE627 or ENEE721. Formerly: ENEE721.

Information measures and their properties; entropy, relative entropy and mutual information. Information source models. Lossless data compression: the Kraft inequality, Shannon-Fano and Huffman codes. Typical sequences, asymptotic equipartition property, lossy source coding. Discrete memoryless channels: capacity, channel coding theorem. The additive Gaussian channel. Source coding under a fidelity constraint: rate distortion function and rate distortion theorem.

0101	Prakash Narayan TuTh 3:30pm - 4:45pm	Seats (Total: 35) CSI 1122

ENEE631 **Digital Image and Video Processing**

Credits: 3 Grading Method: Regular, Audit, Sat-Fail

Prerequisite: ENEE620 and ENEE630; or students who have taken courses with comparable content may contact the department.

Foundations of digital image and video processing. Topics covered: 2-D systems and transforms; image acquisition and perception; multi-dimensional sampling; quantization; linear and non-linear techniques for image enhancement and restoration; basics on image analysis; lossless and lossy image compression; motion estimation and compensation; still image and video coding standards; applications of image and video processing.

0101	KJ Ray Liu	Seats (Total: 30)
	TuTh 12:30pm - 1:45pm	EGR 2116

ENEE632 **Speech and Audio Processing**

Credits: 3 Grading Method: Regular, Audit, Sat-Fail

Prerequisite: ENEE620 and ENEE630. Credit only granted for: ENEE739A or ENEE632. Formerly: ENEE739A.

The objective is to apply digital signal processing techniques to speech and music signals. Topics covered include acoustic theory of speech production leading to the source-filter model; acoustic and digital vocal-tract models of speech production; speech analysis-synthesis based on the short-time Fourier transform, linear prediction, and homomorphic representations; extensions to other multiresolution analysis; time-domain models for speech processing; auditory perception and speech perception; waveform and model-based speech coding using scalar and vector quantization; time-scale modification; pitch and formant estimation; application of techniques to music analysis-synthesis.

0101	Carol Espy-Wilson	Seats (Total: 30)
	MW 11:00am - 12:15pm	EGR 2116

ENEE640 **Digital CMOS VLSI Design**

Credits: 3 Grading Method: Regular, Audit, Sat-Fail

Prerequisite: ENEE303 and ENEE350; or students who have taken courses with comparable content may contact the department; or permission of instructor.

Review of MOS transistors: fabrication, layout, characterization; CMOS circuit and logic design: circuit and logic simulation, fully complementary CMOS logic, pseudo-nMOS logic, dynamic CMOS logic, pass-transistor logic, clocking strategies; sub system design: ALUs, multipliers, memories, PLAs; architecture design: datapath, floorplanning, iterative cellular arrays, systolic arrays; VLSI algorithms; chip design and test: full custom design of chips, possible chip fabrication by MOSIS and subsequent chip testing.

0101	Ankur Srivastava	Seats (Total: 40)
	TuTh 3:30pm - 4:45pm	EGR 1104

ENEE645 **Compilers and Optimization**

Credits: 3

Grading Method: Regular, Audit, Sat-Fail

Prerequisite: ENEE350 or CMSC216; or students who have taken courses with comparable content may contact the department. Credit only granted for: ENEE645 or ENEE759C. Formerly: ENEE759C.

The compilation, linking and loading process. Using lexical analyzers and parsers. Intermediate forms. Global, stack and heap objects, and their addressing modes. Stack implementation. Control flow analysis and optimization. Dataflow analysis and optimization including Static, single assignment. Alias analysis.

0101	Rajeev Barua	Seats (Total: 45)
	TuTh 12:30pm - 1:45pm	AJC 2121

ENEE651 **Parallel Algorithms**

Credits: 3

Grading Method: Regular, Audit, Sat-Fail

Prerequisite: CMSC451; or ENEE641; or students who have taken courses with comparable content may contact the department. Jointly offered wit h CMSC751. Credit only granted for: ENEE651, ENEE759K or CMSC751. Formerly: ENEE759K.

A presentation of the theory of parallel computers and parallel processing. Models of parallel processing and the relationships between these models. Techniques for the design and analysis of efficient parallel algorithms including parallel prefix, searching, sorting, graph problems, and algebraic problems. Theoretical limits of parallelism.

0101	Uzi Vishkin	Seats (Total: 30)
	TuTh 2:00pm - 3:15pm	IRB 1207

ENEE661 **Nonlinear Control Systems**

Credits: 3

Grading Method: Regular, Audit, Sat-Fail

Prerequisite: ENEE660; and (MATH410 or MATH411; or students who have taken courses with comparable content may contact the department). Or permission of instructor.

State space methods of stability analysis including second order systems and the phase plane, linearization and stability in the small, stability in the large and Lyapunov's second method. Frequency domain methods including the describing function. Popov's method and functional analytic methods. Introduction to Volterra series representations of nonlinear systems. Applications to conrol system design.

0101	Perinkulam Krishnaprasad	Seats (Total: 30)
	MW 5:00pm - 6:15pm	AJC 2121

ENEE664 **Optimal Control**

Credits: 3

Grading Method: Regular, Audit, Sat-Fail

Prerequisite: ENEE660 and MATH410; or students who have taken courses with comparable content may contact the department; or permission of instructor. Corequisite: MATH411; or permission of instructor.

General optimization and control problems. Conditions of optimality for unconstrained and constrained optimization problems; sensitivity; duality. Introduction to linear and nonlinear programming methods. Dynamic optimization. Discrete time maximum principle and applications. Pontryagin maximum principle in continuous time. Dynamic programming. Feedback realization of optimal control.

0101	Andre Tits	Seats (Total: 30)
	MW 2:00pm - 3:15pm	MTH 0409

ENEE681 **Electromagnetic Theory II**

Credits: 3

Grading Method: Regular, Audit, Sat-Fail

Prerequisite: ENEE381; or students who have taken courses with comparable content may contact the department.

Continuation of ENEE 680. Theoretical analysis and engineering applications of Maxwell's equations. The homogeneous wave equation. Plane wave propagation. The interaction of plane waves and material media. Retarded potentials. The Hertz potential. Simple radiating systems. Relativisitic covariance of Maxwell's equations.

0101	Thomas Antonsen	Seats (Total: 30)
	TuTh 11:00am - 12:15pm	EGR 3106

ENEE691 **Optical Communication Systems**

Credits: 3

Grading Method: Regular, Audit, Sat-Fail

Optical components and systems. Measures of performance of optical communication systems. Topics include: single and multi-mode optical fibers, DFB and DBR lasers, transmitters and receivers, pin and APD detectors, noise analysis, receiver sensitivity modulation formats, system performance, bit-error-rate, power budget, TDM and WDM systems, network architecture.

0101	Mario Dagenais	Seats (Total: 30)
	MW 11:00am - 12:15pm	EGR 2154

ENEE698C **Graduate Seminar; CONTROLS**

Credits: 1 Grading Method: Sat-Fail, Audit

Every semester regular seminars are held in electrical science and in the six areas of specialization offered by the electrical engineering department. They may be taken, by arrangement with the student's advisor, for repeated credit.

0101	John Baras	Seats (Total: 20)
	M 11:00am - 12:15pm	AJC 2119

ENEE698P **Graduate Seminar; First Year Research Seminar**

Credits: 1 Grading Method: Sat-Fail, Audit

Every semester regular seminars are held in electrical science and in the six areas of specialization offered by the electrical engineering department. They may be taken, by arrangement with the student's advisor, for repeated credit.

0101	Sennur Ulukus	Seats (Total: 75)
	Tu 5:00pm - 6:15pm	CHE 2110

ENEE698Q **Graduate Seminar; Colloquium Series**

Credits: 1 Grading Method: Sat-Fail, Audit

Every semester regular seminars are held in electrical science and in the six areas of specialization offered by the electrical engineering department. They may be taken, by arrangement with the student's advisor, for repeated credit.

0101	Joseph JaJa	Seats (Total: 80)
	F 3:30pm - 4:30pm	KEB 1110

ENEE699 **Independent Studies in Electrical Engineering**

(Perm req)

Credits: 1-3 Grading Method: Regular, Audit, Sat-Fail

Supervised individual study or project, or supervised group study or project, at an advanced level, in electrical engineering.

Contact department for information to register for this course.

ENEE769M **Advanced Topics in Controls; Robotics**

Credits: 3 Grading Method: Regular, Audit, Sat-Fail

Topics selected, as announced every semester, from the field of controls and its applications.

0101	Dinesh Manocha	Seats (Total: 15)
	TuTh 11:00am - 12:15pm	IRB 2107

ENEE789A **Advanced Topics in Electrophysics; Magnetism and Spintronics**

Credits: 3 Grading Method: Regular, Audit, Sat-Fail

Topics selected, as announced every semester, from the field of electrophysics and its applications.

Prerequisites: Completion of ENEE313 with a "C-" or better; or students who have taken courses with comparable content may contact the department. This course covers the fundamental physics of magnetism, magnetic materials, and spintronic devices. It aims at providing an understanding of fundamental principles, on different length scales, that underlie a variety of magnetic materials and devices. State-of-the-art spintronic devices in industry and novel concepts of spintronics in laboratories will be discussed.

0101	Cheng Gong	Seats (Total: 30)
	TuTh 3:30pm - 4:45pm	EGR 2116

ENEE799 **Master's Thesis Research**

(Perm req)

Credits: 1-6 Grading Method: Sat-Fail

Contact department for information to register for this course.

ENEE889 **Teaching Workshop**

(Perm req)

Credits: 1 Grading Method: Sat-Fail

Provide training in education for senior PhD students who contemplate an academic career, and give them the opportunity to gain some teaching experience. Emphasis is on issues that are of special importance in electrical and computer engineering education.

Contact department for information to register for this course.

ENEE898 **Pre-Candidacy Research**

(Perm req)

Credits: 1-8 Grading Method: Regular, Sat-Fail

Provide training in education for senior PhD students who contemplate an academic career, and give them the opportunity to gain some teaching experience. Emphasis is on issues that are of special importance in electrical and computer engineering education.

Contact department for information to register for this course.

ENEE899 **Doctoral Dissertation Research**

(Perm req)

Credits: 6 Grading Method: Sat-Fail

Contact department for information to register for this course.

ENES Engineering Science Spring 2020

ENES100 **Introduction to Engineering Design**

(Perm req)

Credits: 3 Grading Method: Regular, Pass-Fail, Audit CORE: PS General Education: DSSP

Corequisite: MATH140.

Students work as teams to design and build a product using computer software for word-processing, spreadsheet, CAD, and communication skills.

Credit granted for ENES100 or ENES100A.

0101	Michael Galczynski MW 10:00am - 11:50am Class time/details on ELMs	Seats (Total: 34) JMP 1116 ONLINE
0102	W Ethan Eagle MW 10:00am - 11:50am Class time/details on ELMs	Seats (Total: 34) JMP 1215 ONLINE
0201	Michael Galczynski TuTh 10:00am - 11:50am Class time/details on ELMs	Seats (Total: 34) JMP 1116 ONLINE

0202	John Cumings TuTh 10:00am - 11:50am Class time/details on ELMs	Seats (Total: 34) JMP 1215 ONLINE
0301	Brian Danielak MW 12:00pm - 1:50pm Class time/details on ELMs	Seats (Total: 31) JMP 1116 ONLINE
0302	Jarred Young MW 12:00pm - 1:50pm Class time/details on ELMs	Seats (Total: 34) JMP 1215 ONLINE
0401	Kevin Calabro TuTh 12:00pm - 1:50pm Class time/details on ELMs	Seats (Total: 34) JMP 1116 ONLINE
0402	Brian Danielak TuTh 12:00pm - 1:50pm Class time/details on ELMs	Seats (Total: 34) JMP 1215 ONLINE
0501	Brian Danielak MW 2:00pm - 3:50pm Class time/details on ELMs	Seats (Total: 34) JMP 1116 ONLINE
0601	Kevin Calabro TuTh 2:00pm - 3:50pm Class time/details on ELMs	Seats (Total: 34) JMP 1116 ONLINE
0602	David Kriesberg MW 4:00pm - 5:50pm Class time/details on ELMs	Seats (Total: 13) JMP 1116 ONLINE
0701	Taylor Myers MW 8:00am - 9:50am Class time/details on ELMs	Seats (Total: 23) JMP 1116 ONLINE

ENES100A **Introduction to Engineering Design**

(Perm req) Credits: 3 Grading Method: Regular, Pass-Fail, Audit CORE: PS General Education: DSSP

Corequisite: MATH140.

Students work as teams to design and build a product using computer software for word-processing, spreadsheet, CAD, and communication skills.

Restricted to non-engineering students. Credit granted for ENES100 or ENES100A.

0101	Michael Galczynski MW 10:00am - 11:50am Class time/details on ELMs	Seats (Total: 5) JMP 1116 ONLINE
0102	W Ethan Eagle MW 10:00am - 11:50am Class time/details on ELMs	Seats (Total: 5) JMP 1215 ONLINE
0201	Michael Galczynski TuTh 10:00am - 11:50am Class time/details on ELMs	Seats (Total: 5) JMP 1116 ONLINE
0202	John Cumings TuTh 10:00am - 11:50am Class time/details on ELMs	Seats (Total: 5) JMP 1215 ONLINE
0301	Brian Danielak MW 12:00pm - 1:50pm Class time/details on ELMs	Seats (Total: 8) JMP 1116 ONLINE
0302	Jarred Young MW 12:00pm - 1:50pm Class time/details on ELMs	Seats (Total: 5) JMP 1215 ONLINE
0401	Kevin Calabro TuTh 12:00pm - 1:50pm Class time/details on ELMs	Seats (Total: 5) JMP 1116 ONLINE
0402	Brian Danielak TuTh 12:00pm - 1:50pm Class time/details on ELMs	Seats (Total: 5) JMP 1215 ONLINE
0501	Brian Danielak MW 2:00pm - 3:50pm Class time/details on ELMs	Seats (Total: 5) JMP 1116 ONLINE

0601	Kevin Calabro TuTh 2:00pm - 3:50pm Class time/details on ELMs	Seats (Total: 5) JMP 1116 ONLINE	
0602	David Kriesberg MW 4:00pm - 5:50pm Class time/details on ELMs	Seats (Total: 26) JMP 1116 ONLINE	
0701	Taylor Myers MW 8:00am - 9:50am Class time/details on ELMs	Seats (Total: 16) JMP 1116 ONLINE	

ENES102 **Mechanics I**

(Perm req)

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Corequisite: MATH140. Restriction: Must be in a major in ENGR-A. James Clark School of Engineering. Formerly: ENES110.

The equilibrium of stationary bodies under the influence of various kinds of forces. Forces, moments, couples, equilibrium, trusses, frames and machines, centroids, moment of inertia, beams, friction, stress/strain, material properties. Vector and scalar methods are used to solve problems.

0101	Gary Pertmer MW 9:00am - 9:50am F 9:00am - 10:50am	Seats (Total: 50) KEB 1200 EGR 1108	 Discussion
0301	Thomas Beigel MW 2:00pm - 2:50pm F 2:00pm - 3:50pm	Seats (Total: 50) EGR 0108 EGR 0108	 Discussion
0601	Thomas Beigel MW 10:00am - 10:50am F 10:00am - 11:50am	Seats (Total: 50) EGR 0108 EGR 0108	 Discussion
0701	Thomas Beigel MW 12:00pm - 12:50pm F 12:00pm - 1:50pm	Seats (Total: 50) EGR 0108 EGR 0108	 Discussion
0801	Michael Galczynski MW 1:00pm - 1:50pm F 1:00pm - 2:50pm	Seats (Total: 50) PHY 1201 CHM 0115	 Discussion

ENES108 **Achieving College Success: First Year Transition**

(Perm req)

Credits: 1

Grading Method: Regular, Pass-Fail, Audit

An exploration of the skills and habits needed to successfully complete the first year of study for Science, Technology, Engineering, and Mathematics (STEM) majors. This course is an extension of the college success seminars taught during the Summer Bridge Program.

0101	Migdalia Maldonado M 6:00pm - 6:50pm	Seats (Total: 18) EGR 3106
0102	Migdalia Maldonado M 5:30pm - 6:30pm	Seats (Total: 20) EGR 3114

ENES114 **Virtus Seminar II**

Credits: 1

Grading Method: Regular, Pass-Fail

Prerequisite: ENES113. Restriction: Students must be participants in the Virtus Living and Learning Community.

Focus on personal and professional development with engineering with a strong emphasis on career development. Learn to employ strategies and skills for academic and professional success.

0101	Liza Lebrun W 4:00pm - 5:15pm	Seats (Total: 50) PLS 1113
0201	Liza Lebrun Contact instructor or department for details.	Seats (Total: 20)

ENES116 **FLEXUS Living and Learning Community Seminar II**

Credits: 1

Grading Method: Regular, Pass-Fail, Audit

Prerequisite: ENES115.

The seminar focuses on personal and professional development by enhancing technical ability, understanding educational options through minors and student projects in engineering, identifying and employing strategies and skills for academic and professional success, and developing career commitment through networking and mentoring. Students develop professional portfolios in preparation for a future internship or job.

0101	Veronica Perrigan W 4:00pm - 5:15pm	Seats (Total: 60) KEB 1200
0102	Veronica Perrigan Contact instructor or department for details.	Seats (Total: 10)

ENES140 **Discovering New Ventures**

Credits: 3 | Grading Method: Regular, Pass-Fail | General Education: DSSP

Additional information: This course may count as an elective for a student at the University of Maryland, depending on the student's specific degree program. It cannot be counted towards the requirements for the Smith School of Business Entrepreneurship Fellow Program.

Students explore dynamic company startup topics by working in teams to design a new venture. This multi-disciplinary course helps students to learn the basic business, strategy, and leadership skills needed to launch new ventures. Topics include learning how to assess the feasibility of a startup venture, as well as how to apply best practices for planning, launching, and managing new companies. Students discuss a wide range of issues of importance and concern to entrepreneurs and learn to recognize opportunities, assess the skills and talents of successful entrepreneurs, and learn models that help them navigate uncertainty.

A Fearless Ideas Course from the Academy for Innovation & Entrepreneurship (AIE): http://ter.ps/iamFEARLESS Click here for more information on the Fearless Ideas Courses.

0101	James Green Class time/details on ELMs	Seats (Total: 250) ONLINE
0201	James Green Class time/details on ELMs	Seats (Total: 250) ONLINE
0301	James Green Class time/details on ELMs	Seats (Total: 250) ONLINE
0401	James Green Class time/details on ELMs	Seats (Total: 250) ONLINE
0501	James Green Class time/details on ELMs	Seats (Total: 250) ONLINE
0601	James Green Class time/details on ELMs	Seats (Total: 250) ONLINE

0701	James Green Class time/details on ELMs	Seats (Total: 250) ONLINE
0801	James Green Class time/details on ELMs	Seats (Total: 250) ONLINE
0901	James Green Class time/details on ELMs	Seats (Total: 250) ONLINE
1001	James Green Class time/details on ELMs	Seats (Total: 250) ONLINE

ENES190H **Introduction to Design and Quality**

Credits: 4 | Grading Method: Regular, Pass-Fail | General Education: DSSP

Prerequisite: Must be in the Quest program. Cross-listed with BMGT190. Credit only granted for: BMGT190 or ENES190.

QUEST students learn and apply design practices to design new products and services. Working in multidisciplinary teams, students use quality and process improvement methods to identify, analyze, and recommend solutions to real-world problems.

Restricted to QUEST program students. Cross-listed with BMGT190H. Credit granted for BMGT190H or ENES190H.

0101	Pamela Armstrong TuTh 12:30pm - 1:45pm Tu 6:00pm - 7:50pm	Seats (Total: 45) HJP 2242 VMH 1418	 Discussion

ENES192 **Engineering For Us All**

Credits: 3 | Grading Method: Regular, Pass-Fail, Audit | General Education: DSSP

Prerequisite: MATH107. Additional information: Recommended for non-engineering majors.

Students are challenged to uncover hidden valuable connections among a variety of disciplines, while creatively seeking and solving problems as a team. Students learn and practice skills for how groups function and identify innovation while addressing the tensions between our inherent drives to seek and solve, to share, and to sell.

0101	W Ethan Eagle MW 2:00pm - 4:00pm	Seats (Total: 24) AJC 1114

ENES210 **Entrepreneurial Opportunity Analysis and Decision-Making in 21st Century Technology Ventures**

Credits: 3	Grading Method: Regular, Pass-Fail, Audit	CORE: IE	General Education: DSSP, SCIS

Credit only granted for: ENES210 or ENES461.

This multi-disciplinary course helps students learn the principles of entrepreneurial opportunity analysis and decision-making in an increasingly dynamic and technically-inclined society. Emphasis is placed on how aspiring technology entrepreneurs can develop their entrepreneurial perspectives to develop winning entrepreneurial plans for their future ventures.

0101	James Green Class time/details on ELMs M 9:00am - 9:50am	Seats (Total: 120) ONLINE ESJ 1202
0102	James Green Class time/details on ELMs M 10:00am - 10:50am	Seats (Total: 120) ONLINE ESJ 2208
0103	James Green Class time/details on ELMs M 1:00pm - 1:50pm	Seats (Total: 120) ONLINE ESJ 1224
0104	James Green Class time/details on ELMs W 9:00am - 9:50am	Seats (Total: 120) ONLINE ESJ 1202
0105	James Green Class time/details on ELMs W 10:00am - 10:50am	Seats (Total: 120) ONLINE ESJ 2208
0106	James Green Class time/details on ELMs W 1:00pm - 1:50pm	Seats (Total: 120) ONLINE ESJ 1224
0107	James Green Class time/details on ELMs M 2:00pm - 2:50pm	Seats (Total: 120) ONLINE ESJ 2204
0108	James Green Class time/details on ELMs W 2:00pm - 2:50pm	Seats (Total: 120) ONLINE ESJ 2204

ENES214 **Virtus Seminar IV**

(Perm req)

Credits: 1

Grading Method: Regular, Pass-Fail

Prerequisite: Students must have completed ENES213. Restriction: Students must be participants in the Virtus Living and Learning Community.

Students continue to develop their leadership and mentoring skills, participate in networking opportunities and explore their interest in special engineering topics.

0101	Logan Williams W 4:00pm - 5:15pm	Seats (Total: 40) PLS 1119

ENES216 **FLEXUS Living and Learning Community Seminar IV**

Credits: 1

Grading Method: Regular, Pass-Fail, Audit

Prerequisite: ENES115, ENES116, and ENES215. Restriction: Restricted to second year FLEXUS participants.

The seminar focuses on gender diversity and its cross-sections with culture. Students continue to enhance their leadership and mentoring skills, participate in networking opportunities with women in leadership roles and careers in engineering, and engage in opportunities for outreach and service-learning. Students will also complete a culminating semester project.

0101	Logan Williams W 4:00pm - 5:15pm	Seats (Total: 40) CHM 1224

ENES220 **Mechanics II**

(Perm req)

Credits: 3

Grading Method: Regular, Pass-Fail, Audit

Prerequisite: Minimum grade of C- in ENES102; and (MATH141 and PHYS161). Restriction: Must be in a major in ENGR-A. James Clark School of Engineering; and must not be in Engineering: Electrical program.

Stress and deformation of solids-rods, beams, shafts, columns, tanks, and other structural, machine and vehicle members. Topics include stress transformation using Mohr's circle; shear and moment diagrams; derivation of elastic curves; and Euler's buckling formula. Design problems related to this material are given in lab.

0101	Robert Bonenberger MW 2:00pm - 2:50pm F 2:00pm - 3:50pm	Seats (Total: 61) CSI 1115 CHE 2108	Discussion
0103	Robert Bonenberger MW 10:00am - 10:50am F 10:00am - 11:50am	Seats (Total: 61) KEB 1110 PLS 1140	Discussion
0105	Bongtae Han MW 11:00am - 11:50am F 11:00am - 12:50pm	Seats (Total: 61) KEB 1200 CHM 0115	Discussion
0106	Teng Li MW 11:00am - 11:50am F 11:00am - 12:50pm	Seats (Total: 61) EGR 1108 SYM 0200	Discussion

ENES221 **Dynamics**

(Perm req)

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Prerequisite: Minimum grade of C- in ENES102; and (MATH141 and PHYS161). Restriction: Must be in a major in ENGR-A. James Clark School of Engineering.

Systems of heavy particles and rigid bodies at rest and in motion. Force-acceleration, work-energy and impulse-momentum relationships. Motion of one body relative to another in a plane and in space.

Engineering College (04) only.

0101	Patrick McAvoy TuTh 9:00am - 9:50am F 9:00am - 10:50am	Seats (Total: 48) ITV 1111 KEB 1110	Discussion
0102	James Duncan TuTh 1:00pm - 1:50pm F 1:00pm - 2:50pm	Seats (Total: 50) PLS 1130 KEB 1200	Discussion
0104	Patrick McAvoy TuTh 1:00pm - 1:50pm F 1:00pm - 2:50pm	Seats (Total: 50) CHE 2110 SPH 1301	Discussion

ENES232 **Thermodynamics**

Credits: 3

Grading Method: Regular, Pass-Fail, Audit

Prerequisite: PHYS261 and PHYS260. Restriction: Must be in a major in ENGR-A. James Clark School of Engineering. Credit only granted for: BIOE232, CHBE301, ENCH300, ENES232, ENME320, or ENME232. Formerly: ENME232 and ENME320.

Introduction to thermodynamics. Thermodynamic properties of matter. First and second laws of thermodynamics, cycles, reactions, and mixtures.

0101	Catherine Hamel MW 10:00am - 10:50am F 9:00am - 10:50am	Seats (Total: 58) ATL 1113 ATL 1113	 Discussion
0102	Catherine Hamel MW 11:00am - 11:50am F 11:00am - 12:50pm	Seats (Total: 58) ATL 1113 ANS 0408	 Discussion
0201	Catherine Hamel MW 1:00pm - 1:50pm F 1:00pm - 2:50pm	Seats (Total: 58) EGR 1108 EGR 1108	 Discussion
0202	Christopher Cadou TuTh 2:00pm - 2:50pm F 2:00pm - 3:50pm	Seats (Total: 58) ESJ 2208 CSI 1115	 Discussion
0301	Jarred Young MW 3:00pm - 3:50pm F 2:00pm - 3:50pm	Seats (Total: 58) PLS 1130 PLS 1130	 Discussion
0601	Jarred Young MW 10:00am - 10:50am F 10:00am - 11:50am	Seats (Total: 58) JMP 3201 JMP 3201	 Discussion

ENES304 **RISE Seminar**

Credits: 1

Grading Method: Regular, Pass-Fail

Restriction: Must be in the Engineering RISE Leadership Program; and permission of ENGR-A. James Clark School of Engineering.

This is the first semester of a two semester sequence taken by RISE students in their first semester in the program. T he purpose of ENES 304 is for RISE students to learn about leadership, acquire leadership skills, and understand how to integrate leadership theories and concepts in engineering practice. There will be a mix of formal lectures by course faculty and lectures by distinguished speakers who can provide their own experience of what leadership means and how it is acquired. Students will explore their own leadership philosophy and leadership capacities in the context of group practice. Students will make meaning of general leadership theories and concepts and understand how to apply them to engineering industry. Students will also gain understanding of leadership through the stories shared by distinguished speakers with industrial, governmental and academic experience.

Contact department for information to register for this course.

ENES305 **RISE Leadership Seminar**

(Perm req)

Credits: 1 Grading Method: Regular, Pass-Fail

Prerequisite: Permission of ENGR-A. James Clark School of Engineering; and ENES304.

This is the second semester of a two semester sequence taken by RISE students in their final semester in the program. The purpose of ENES 305 is for RISE students to learn about leadership, acquire leadership skills, and understand how to integrate leadership theories and concepts in engineering practice. There will be a mix of formal lectures by course faculty and lectures by distinguished speakers who can provide their own experience of what leadership means and how it is acquired. Students will explore their own leadership philosophy and leadership capacities in the context of group practice. Students will make meaning of general leadership theories and concepts and understand how to apply them to engineering industry. Students will also gain understanding of leadership through the stories shared by distinguished speakers with industrial, governmental and academic experience.

0101	Kenneth Kiger, William Fourney, Jane Fines, Natasha Chapman W 5:00pm - 6:00pm	Seats (Total: 38) EGR 0135

ENES317 **Introduction to Engineering Leadership**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit General Education: DSSP

Prerequisite: Permission of ENGR-A. James Clark School of Engineering.

Focus is placed on general leadership theories in addition to real-world applications of leadership in engineering education, industry, and government.

Restricted to students in the Engineering Leadership Development minor (#EN04) and the Global Engineering Leadership minor (#EN09). All others may go on the holdfile.

0102	Natasha Chapman Class time/details on ELMs	Seats (Total: 45) ONLINE

ENES397 **Mentoring Multidisciplinary Teams**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Restriction: Restricted to QUEST Program (TQMP) students. Also offered as: BMGT397. Credit only granted for: BMGT397 or ENES397.

QUEST students practice essential skills for mentoring and coaching multidisciplinary teams. These include effective communications, facilitation, conflict resolution, and the ability to motivate. Students will practice these skills as mentors for student teams from BMGT/ENES 190H. In the process, they will strengthen their knowledge of design and quality techniques.

0101	Pamela Armstrong	Seats (Total: 9)
	Tu 5:00pm - 7:40pm	VMH 1415

ENES424 **Engineering Leadership Capstone**

(Perm req)

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Prerequisite: ENES472, ENCE320, and ENES317; and permission of ENGR-A. James Clark School of Engineering. Recommended: ENES100.

The work initiated in the Introduction to Engineering Leadership course brings together further exploration of leadership styles and concepts.

Contact department for information to register for this course.

ENES440 **Science, Technology and Society: Certificate Program Capstone**

(Perm req)

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Restriction: Must be in the Science, Technology and Society certificate program; or permission of ENGR-A. James Clark School of Engineering. Credit only granted for: ENES440 or UNIV401. Formerly: UNIV401.

Capstone research seminar for students in the Science, Technology and Society certificate program.

0101	David Tomblin	Seats (Total: 25)
	Contact instructor or department for details.	
	Contact instructor or department for details.	

ENES458B **Topics in International Engineering; Engineers Without Borders: Leadership Seminar-Brazil**

Credits: 1 Grading Method: Regular, Pass-Fail, Audit

A variety of topics related to engineering in a global context are discussed including cultural aspects, cross-cultural communication, international standards and law, and engineering and technology issues, business behavior, attitudes and values of selected countries and regions.

Contact department for information to register for this course.

ENES458I **Topics in International Engineering; Engineers Without Borders Project Implementation**

Credits: 1 Grading Method: Regular, Pass-Fail, Audit

A variety of topics related to engineering in a global context are discussed including cultural aspects, cross-cultural communication, international standards and law, and engineering and technology issues, business behavior, attitudes and values of selected countries and regions.

Contact department for information to register for this course.

ENES458N **Topics in International Engineering; The Global Engineer**

(Perm req)

Credits: 1 Grading Method: Regular, Pass-Fail, Audit

A variety of topics related to engineering in a global context are discussed including cultural aspects, cross-cultural communication, international standards and law, and engineering and technology issues, business behavior, attitudes and values of selected countries and regions.

0101	Jane Fines	Seats (Total: 1)
	Class time/details on ELMs	ONLINE

ENES459 **Study Abroad Special Topics in Engineering IV**

Credits: 1-6 Grading Method: Regular, Pass-Fail, Audit

Special topics course in engineering science taken as part of an approved study abroad program.

2301	Peter Chang	Seats (Total: 1)
	Contact instructor or department for details.	

ENES460 **Fundamentals of Technology Start-Up Ventures**

(Perm req)

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Restriction: Permission of ENGR-Maryland Technology Enterprise Institute. Credit only granted for: ENES460, BMGT461, SMLP470 or HLMN470. Additional information: Course may not be used to fulfill any BMGT major or minor program requirement.

Fundamental aspects of creating, organizing, funding, managing, and growing a technology startup venture. This multidisciplinary course will draw on management, business, legal, financial, as well as technical, concepts. Students form teams and develop a business plan for a technology company, based on each team's own business idea and then present the plan to a panel of outside experts.

0101	Cait von Schnetlage Th 5:00pm - 5:50pm Class time/details on ELMs	Seats (Total: 20) SQH 1111 ONLINE

ENES461 **Advanced Entrepreneurial Opportunity Analysis in Technology Ventures**

Credits: 3 Grading Method: Regular, Pass-Fail

Credit only granted for: ENES210 or ENES461.

Explores the factors that influence entrepreneurial opportunity analysis in technology-based ventures. Uses a cognitive theoretical framework to examine the integration of motivation, emotions and information processing modes to make complex entrepreneurial decisions in technology venture environments.

Credit only granted for ENES210 or ENES461.

0101	James Green Class time/details on ELMs	Seats (Total: 280) ONLINE
0201	James Green Class time/details on ELMs	Seats (Total: 280) ONLINE

ENES462 **Marketing High-Technology Products and Innovations**

(Perm req)

Credits: 3 Grading Method: Regular, Pass-Fail

Restriction: Permission of ENGR-Maryland Technology Enterprise Institute. Additional information: Course may not be used to fulfill any BMGT major or minor program requirement.

Examines the opportunities and challenges of marketing high-technology products in turbulent environments requiring rapid decision making with incomplete information. Explores how innovations are introduced at frequent intervals, research-and-development spending is vital, and there are high mortality rates for both products and businesses.

0101	Michael Pratt, James Green TuTh 5:00pm - 6:15pm *Restricted to student enrolled in the Hinman CEO (HCEO) program.*	Seats (Total: 37) SCC 2121

ENES466 **Leading and Financing the Technology Venture**

(Perm req)

Credits: 3

Grading Method: Regular, Pass-Fail

Restriction: Permission of ENGR-Maryland Technology Enterprise Institute. Credit only granted for: ENES466, BMGT365, SMLP471 or HLMN471. Additional information: Course may not be used to fulfill any BMGT major or minor program requirement.

Focuses on the challenges of leading and financing new technology ventures. Leadership topics include team selection and formation, aligning rewards with relative contributions of team members, and how early decisions can enable or prevent founders from achieving results that align with their individual motivations for becoming an entrepreneur. Essential tools and methods for building a strong financial foundation for a new technology venture are examined. Includes important accounting principles as well as methods for keeping financial control of the technology venture. Insights are shared on navigating the multitude of financial barriers that may block your entrepreneurial success, as well as how to grow the technology venture from concept through launch.

0101	Michael Pratt	Seats (Total: 36)
	Class time/details on ELMs	ONLINE
	Restricted to students in the Minor in Technology Entrepreneurship	

ENES472 **International Business Cultures in Engineering and Technology**

Credits: 3

Grading Method: Regular, Pass-Fail, Audit

General Education: DVCC

Prerequisite: Permission of ENGR-A. James Clark School of Engineering. Restriction: Sophomore standing or higher. Credit only granted for: ENES472, SLLC471, or SLLC473.

The goal is to provide students with an understanding of cultural aspects pertaining to global business and engineering and develop the cultural understanding, attitudes, and communication skills needed to function appropriately within an increasingly global and multicultural working environment.

Restricted to students with the minor in international engineering (#EN01), engineering leadership development (#EN04), and global engineering leadership (#EN09). Students in global poverty (#AG06), in terrorism studies (#BS07), or in international development and conflict management (#BS02) may request permission for the course from Natasha Chapman (chapman3@umd.edu). All other students can be placed on a hold file.

0101	Natasha Chapman	Seats (Total: 45)
	Th 6:00pm - 7:45pm	ESJ 1215
	Class time/details on ELMs	ONLINE

ENES481 **Engineering Honors Seminar II**

Credits: 1

Grading Method: Regular, Pass-Fail

Restriction: Must be in College of Engineering Honors; and junior standing or higher.

Introduction to engineering creativity and innovation in engineering. Application of methods of creativity to topics in communication, conducting research, and leadership.

0101	Richard McCuen	Seats (Total: 20)	
	Tu 8:00am - 8:50am	EGR 1104	

ENES489A **Special Topics in Engineering; Applied Quantitative Analysis**

Credits: 3-6

Grading Method: Regular, Pass-Fail, Audit

Special topics in engineering.

Restricted to QUEST students. Cross-listed with ENES498A. Credit granted for BMGT438A or ENES489A.

0101	Joseph Bailey, Joshua Kohn	Seats (Total: 55)	
	TuTh 2:00pm - 3:15pm	ESJ 0215	

ENES489P **Special Topics in Engineering; Hands-on Systems Engineering Projects**

Credits: 3

Grading Method: Regular, Pass-Fail, Audit

Special topics in engineering.

This hands-on design projects course will expose senior-level undergraduates and graduate students from all areas of engineering to to exciting career opportunities in the systems engineering field. Students will be introduced to the technical aspects of systems engineering practice through team-based project development and a systematic step-by-step procedure for product development that includes defining operations concepts, requirements gathering and organization, synthesis of models of system behavior and system structure, functional allocationto create system design alternatives, formal assessment of design alternatives through tradeoff analysis, and established approaches to testing and validation/verification. The students will be introduced to modern methods in Model-Based Systems Engineering, and industrial strength tools and environments for complex systems synthesis. Team projects may address problems from a wide variety of disciplines or cross-disciplines.

0101	John Baras	Seats (Total: 30)	
	Tu 3:30pm - 4:45pm	KEB 1200	
	Th 3:30pm - 4:55pm	AVW 1442	Lab

0201	John Baras	Seats (Total: 30)	
	Tu 3:30pm - 4:45pm Th 5:00pm - 6:30pm	KEB 1200 AVW 1442	Lab

ENES489Q **Special Topics in Engineering; Design and Innovation in Silicon Valley**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Special topics in engineering.

Restricted to QUEST program students. Cross-listed with ENES489Q. Credit granted for BMGT438G or ENES489Q. Travel to Silicon Valley during Spring Break required of all class participants.

0101	Jessica Roffe	Seats (Total: 15)
	M 5:00pm - 7:40pm	VMH 1415

ENES490H **QUEST Capstone Professional Practicum**

Credits: 4 Grading Method: Regular, Pass-Fail General Education: DSSP

Prerequisite: ENES390 or BMGT390. Cross-listed with: BMGT490. Credit only granted for: BMGT490 or ENES490.

The capstone course for the QUEST Honors Program provides students with an opportunity to learn in multidisciplinary teams of business, engineering, and science students in a real-world setting. Companies engage teams of QUEST students with real organizational challenges and dedicate resources to help students address these problems. Student teams must enhance their skills in quality management, process improvement, and systems design and will apply these to add value to a client. In the process, students will improve their teamwork skills.

Restricted to QUEST program students. Cross-listed with BMGT490H. Credit granted for BMGT490H or ENES490H.

0101	James Purtilo, Joseph Bailey, David Ashley	Seats (Total: 45)	
	W 5:00pm - 7:40pm Contact instructor or department for details.	VMH 1415	

ENES491 **Scoping Experiential Learning Projects**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Prerequisite: BMGT190 or ENES190. Restriction: Restricted to QUEST Program (TQMP) students. Cross-listed with BMGT491. Credit only granted for: BMGT491 or ENES491.

QUEST students cultivate relationships with new and current corporate partners and prepare project scopes for QUEST's introductory course, BMGT/ENES 190H, and capstone course, BMGT/ENES 490H. Requires independent work communicating with clients and class visits to a variety of potential project sites.

0101	Jessica Roffe	Seats (Total: 9)
	F 10:00am - 12:40pm	VMH 1407

ENES498E **Special Topics in Entrepreneurship; Entrepreneurship in Chemical and Life Sciences**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

This entrepreneurship seminar and case study-based course will explore technology entrepreneurship with a focus on leadership, marketing, team-building, and management of new technology ventures and assumes baseline knowledge of entrepreneurship. Students will learn skills needed to succeed as a technology entrepreneur and how to apply best practices for planning, launching, and growing new companies. This course is a requirement of the Hinman CEOs program.

Cross-listed with CHEM498E. Credit granted for CHEM498E or ENES498E or BIOE489E.

0101	Ben Woodard	Seats (Total: 30)
	Th 2:00pm - 4:45pm	CHM 0122

ENES498R **Special Topics in Entrepreneurship; Fearless Founders: New Venture Practicum**

(Perm req)

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

This entrepreneurship seminar and case study-based course will explore technology entrepreneurship with a focus on leadership, marketing, team-building, and management of new technology ventures and assumes baseline knowledge of entrepreneurship. Students will learn skills needed to succeed as a technology entrepreneur and how to apply best practices for planning, launching, and growing new companies. This course is a requirement of the Hinman CEOs program.

Prerequisite: Permission of ENGR-A. James Clark School of Engineering. Cross-listed with BMGT468R. Credit granted for BMGT468R or ENES498R.

0101	Oliver Schlake	Seats (Total: 25)
	M 5:00pm - 7:40pm	VMH 3330H

ENES601 **Future Faculty Program Seminar I**

(Perm req)

Credits: 1 Grading Method: Regular, Audit, Sat-Fail

Restriction: Must be in the Clark School Future Faculty Program.

Introduction to and development of skills necessary to obtain and succeed in a university faculty position. Emphasis on technical writing and effective presentations. Discussion of research diversification, networking, ethics and professionalism.

0101	Yanne Chembo	Seats (Total: 25)
	Th 3:30pm - 4:45pm	ATL 2316

ENES603 **Future Faculty Program Seminar III**

(Perm req)

Credits: 1 Grading Method: Regular, Audit, Sat-Fail

Restriction: Must be in the Clark School Future Faculty Program.

Developing a successful faculty research program. Establishing and maintaining a research group. Finding funding opportunities and writing grant proposals. Mentoring graduate students. Faculty position application process. Preparing research and teaching statements.

0101	Norman Wereley, Alison Flatau	Seats (Total: 25)
	Th 3:30pm - 4:30pm	KEB 1200

ENES604 **Future Faculty Program Teaching Practicum**

Credits: 1 Grading Method: Regular, Audit, Sat-Fail

Prerequisite: ENES602. Restriction: Must be a graduate student in the Clark School Future Faculty Program; and students for whom English is not the native language must pass the Maryland English Institute ITA Evaluation prior to enrolling in this course.

Graduate students will co-teach a course under supervision of a faculty mentor. Graudate students will be involved in all aspects of the course including development of syllabus, presenting lectures, writing and grading examiniations, and evaluating the students in the course.

Restricted to the students in the Future Faculty program.

0101	Min Wu	Seats (Total: 25)
	Contact instructor or department for details.	

ENES662 **Innovative Ideas and Concept Development**

Credits: 3 Grading Method: Regular, Sat-Fail

Enables aspiring entrepreneurs to understand the content, methods, and models for new venture opportunity assessment and analysis. Focuses on how to identify and analyze entrepreneurial opportunities for technology-based ventures by first understanding the personal self and decision-making factors. Explores how to evaluate new venture opportunities and challenges within industries and markets.

PLM1	James Green	Seats (Total: 50)
	Meets February 27, 2020 - May 20, 2020	
	Class time/details on ELMs	ONLINE
	Restricted to students in the MPTE Program.	

ENES663 **Strategies for Managing Innovation**

Credits: 3 Grading Method: Regular, Sat-Fail

Credit only granted for: ENES663 or ENPM691.

Emphasizes how innovative leaders can use strategic management of innovation and technology to enhance firm performance. It helps students to understand the process of technological change; the ways that firms come up with innovations; the strategies that firms use to benefit from innovation; and the process of formulating technology strategy. It provides frameworks for analyzing key aspects of these industries and teaches students how to apply these frameworks.

PLM1	Thomas Mierzwa	Seats (Total: 50)
	Meets February 27, 2020 - May 20, 2020	
	Class time/details on ELMs	ONLINE
	Restricted to students in the MPTE Program.	

ENES666 **Creative Design, Prototyping, and Testing**

Credits: 3 Grading Method: Regular, Sat-Fail

Prerequisite: ENES664 and ENES665.

Transition from creative, innovative, design thinking methods to prototyping and concept testing of products and services. Learn how to translate ideas into marketable offerings to create real value for customers and the new venture. Emphasis is placed on an integrated and interdisciplinary approach to engineering design, concurrent engineering, design for manufacturing, industrial design, and the business of new product development. Topics include design methods, modeling and simulation, material and manufacturing process selection, platform and modular design, mass customization, planning and scheduling, and business issues, teamwork, group dynamics, creativity, and innovation.

PLM1	Cait von Schnetlage	Seats (Total: 50)
	Meets February 27, 2020 - May 20, 2020	
	Class time/details on ELMs	ONLINE
	Restricted to students in the MPTE Program.	

ENES667 **Market Development and Commercialization**

Credits: 3 Grading Method: Regular, Sat-Fail

Prerequisite: ENES664 and ENES665.

Provides an orientation to key marketing concepts critical to marketing technology-based products and services. Learn to identify market opportunities, understand customer preferences, evaluate market acceptance, and devise the appropriate going to market strategies for the new venture.

PLM1	Daniel Dearing	Seats (Total: 50)
	Meets February 27, 2020 - May 20, 2020	
	Class time/details on ELMs	ONLINE
	Restricted to students in the MPTE Program.	

ENES672 **Launching Technology Startup Ventures**

Credits: 6 Grading Method: Regular, Sat-Fail

Prerequisite: ENES670 and ENES671. Credit only granted for: ENES660 or ENES672.

Explores the processes and skills needed to launch and manage technology startup ventures. Learn how to apply best practices for planning, launching, and leading new companies. Discusses a wide range of issues of importance and concern to entrepreneurs, to include how to navigate uncertainty.

PLM1	Mark Komisky	Seats (Total: 15)
	Meets February 27, 2020 - May 20, 2020	
	Class time/details on ELMs	ONLINE
	Restricted to students in the MPTE program.	

ENFP Engineering, Fire Protection Spring 2020

ENFP101 **Introduction to Fire Protection Engineering**

(Perm req)

Credits: 1 Grading Method: Regular, Pass-Fail, Audit

Restriction: Permission of ENGR-Fire Protection Engineering department. Credit only granted for: ENFP108 or ENFP101. Formerly: ENFP108.

This course will introduce students to the impact of fire on people, property and the environment and methods to mitigate the threat of fire. Student teams will apply the principles of fire behavior and fire safety systems covered in the first half of the course to design, build and test a fire safe, small-scale apartment. A final experiment will be conducted to provide an assessment of the complete designs of each team.

0101	Peter Sunderland	Seats (Total: 20)	
	M 12:00pm - 12:50pm	JMP 1109	

ENFP201 **Numerical Methods with MatLab**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Prerequisite: MATH141. Restriction: Must be in Engineering: Fire Protection program.

A broad range of numerical methods are illustrated and applications related to engineering problems are implemented using Mat Lab thus providing a working knowledge of this computational tool. The topics covered in the course include: finding roots of equations with bracketing and open methods; solving linear systems of equations with matrices, Gauss elimination, LU decomposition, and iterative methods; linear regression, polynomial interpolation; numerical integration and numerical differentiation; ordinary and partial differential equations. Additional topics such as optimization, eigenvalues, Fourier analysis, splines, and Romberg integration may be included as time allows.

0101	Marino diMarzo, Stanislav Stoliarov	Seats (Total: 20)	
	TuTh 3:30pm - 4:45pm	JMP 3106A	

ENFP310 **Water Based Fire Protection Systems Design**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Prerequisite: ENFP300. Corequisite: ENFP312. Restriction: Permission of ENGR-Fire Protection Engineering department.

Introduction to aqueous fire suppression. Discussion of key fluid dynamics and heat transfer processes in aqueous fire suppression. System design and performance analysis based on national standards, hydraulic theory and elementary fluid dynamics and heat transfer.

0101	Kenneth Isman	Seats (Total: 30)	
	MF 11:00am - 11:50am	ESJ 1309	
	W 11:00am - 12:50pm	TYD 2110	Discussion

ENFP312 **Heat and Mass Transfer**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Prerequisite: ENES232 and ENFP300. Restriction: Permission of ENGR-Fire Protection Engineering department. Credit only granted for: ENFP312 or ENME332.

Fundamentals of heat and mass transfer. Conduction, convection, and radiation modes of heat transfer. Diffusion concepts and evaporation phenomena. Problem solving techniques with application to fire problems.

0101	Marino diMarzo MW 10:00am - 10:50am M 1:00pm - 2:50pm	Seats (Total: 30) KEY 0126 JMP 1109	 Discussion

ENFP350 **Professional Development Seminar**

(Perm req)

Credits: 1 Grading Method: Regular, Pass-Fail, Audit

Prerequisite: Permission of ENGR-Fire Protection Engineering department. Restriction: Junior standing or higher.

An integrative, upper level professional development seminar covering topics such as engineering ethics, professional licensing, codes and standards, intellectual property, career selection and various contemporary issues in fire protection engineering.

0102	Rosalie Wills M 5:00pm - 5:50pm	Seats (Total: 30) PLS 1119

ENFP410 **Special Hazard Suppression Systems**

(Perm req)

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Prerequisite: ENFP310 and ENFP312. Restriction: Permission of ENGR-Fire Protection Engineering department. Credit only granted for: ENFP410 or ENFP653.

Analysis of application and theory of fire suppression systems. The key elements of fire suppression systems will be discussed along with how they interact for effective fire suppression design. Physical mechanisms for a variety of fire suppression approaches will be discussed including hose streams, sprinklers, water mist, foam, clean agents, and chemical agents.

0101	Kenneth Isman TuTh 9:30am - 10:45am	Seats (Total: 44) IRB 1207

ENFP411 **Risk-Informed Performance Based Design**

(Perm req)

Credits: 3

Grading Method: Regular, Pass-Fail, Audit

Restriction: Senior standing; or permission of ENGR-Fire Protection Engineering department.

Appraisal and measurement of fire safety. Application of systems analysis, probability theory, engineering economy and risk management in the identification and synthesis of components of fire protection engineering. Methods for the development of criteria for the design, evaluation and assessment of fire safety or component hazards.

0101	James Milke	Seats (Total: 45)	
	TuTh 5:00pm - 6:15pm	IRB 2207	
	Tu 6:15pm - 7:15pm	IRB 2207	Discussion

ENFP413 **Human Response to Fire**

(Perm req)

Credits: 3

Grading Method: Regular, Pass-Fail, Audit

Prerequisite: ENFP250. Restriction: Permission of ENGR-Fire Protection Engineering department. Jointly offered with ENFP613. Credit only gran ted for: ENFP413 or ENFP613.

Fractional effective dose (FED) methods for predicting time to incapacitation and death of fires for use in fire safety calculations. Physiology and toxicology of the fire effluent components, decomposition chemistry of common materials, standard experimental approaches. Predictive models of material production rates. People movement characteristics related to building evacuation. Formulation and application of evacuation models. Human behavior factors affecting response of people to fire situations.

0101	James Milke, Christopher Campbell	Seats (Total: 22)
	TuTh 2:00pm - 3:15pm	JMP 2202

ENFP420 **Fire Assessment Methods and Laboratory**

Credits: 4

Grading Method: Regular, Pass-Fail, Audit

Prerequisite: Student must have senior standing; and minimum grade of C- in ENFP312. Restriction: Must be in Engineering: Fire Protection program. Credit only granted for: ENFP320 or ENFP420. Formerly: ENFP320.

Experimental evaluation of ignition, flame spread, rate of heat release and smoke production of flammable gases, liquids, solids, and interior finish materials. Analytical and computer methods for the design, performance, and analysis of fire experiments. Preparation of laboratory reports.

0101	Peter Sunderland TuTh 12:30pm - 1:45pm W 12:00pm - 1:15pm	Seats (Total: 8) EGR 1108 JMP 3229	 Lab
0102	Peter Sunderland TuTh 12:30pm - 1:45pm W 1:00pm - 2:15pm	Seats (Total: 8) EGR 1108 JMP 3229	 Lab

ENFP426 **Computational Methods in Fire Protection**

(Perm req)

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Prerequisite: ENFP425. Restriction: Permission of ENGR-Fire Protection Engineering department.

Introduction to computer-based fire modeling: zone modeling and Computational Fluid Dynamics (CFD); documentation of input data, validation and verification tests.

0101	Arnaud Trouve Tu 3:30pm - 4:45pm M 1:00pm - 2:15pm	Seats (Total: 20) PHY 1402 EGR 0312	 Discussion
0102	Arnaud Trouve Tu 3:30pm - 4:45pm M 2:30pm - 3:45pm	Seats (Total: 20) PHY 1402 EGR 0312	 Discussion

ENFP429 **Independent Studies**

(Perm req)

Credits: 1-3 Grading Method: Regular, Pass-Fail, Audit

For students who have definite plans for individual study of approved problems, or study of an advanced topic selected in conjunction with the faculty.

Senior standing. For ENFP majors only.

Contact department for information to register for this course.

ENFP465 **Fire and Explosion Investigations**

(Perm req)

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Prerequisite: Student should have senior standing. Restriction: Permission of ENGR-Fire Protection Engineering department. Also offered as: ENFP665. Credit only granted for: ENFP489N, ENFP629N OR ENFP665. Formerly: ENFP489N. Additional information: The course will be taught as a dual senior-level undergraduate course and graduate course.

Presents an overview of fire and explosion investigation and reconstruction. Information on field techniques, applicable standards and best practices will be presented along with how fire science and fire dynamics can be applied to forensic analysis. Additionally laboratory work will be conducted to illustrate the application of fire dynamics to forensic scenes to assist in the determination of cause and evaluation of potential fire growth scenarios. Sample experiments include 2nd item ignition tests, ignition delay tests, and the course culminates with a series of 1:12 reduced scale house burns to allow the students to investigate and document a fire. This course also qualifies the student to sit for the NAFI Certified Fire Investigator test.

0101	Noah Ryder	Seats (Total: 18)
	M 5:30pm - 8:00pm	JMP 1109

ENFP489 **Special Topics**

(Perm req)

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Selected topics of current importance to fire protection.

For ENFP majors only.

Contact department for information to register for this course.

ENFP613 **Advanced Life Safety Analysis**

(Perm req)

Credits: 3 Grading Method: Regular, Audit, Sat-Fail

Restriction: Permission of ENGR-Fire Protection Engineering department. Credit only granted for: ENFP413 or ENFP613.

Fractional effective dose (FED) methods for predicting time to incapacitation and death of fires for use in fire safety engineering calculations. Physiology and toxicology of fire effluent components, decomposition chemistry of common materials, standard experimental approaches. Predictive models of material production rates. People movement characteristics related to building evacuation. Formulation and application of evacuation models. Human behavior factors affecting response of people to fire situations.

0101	James Milke, Christopher Campbell	Seats (Total: 13)
	TuTh 2:00pm - 3:15pm	JMP 2202

ENFP619 **Graduate Seminar**

(Perm req)

Credits: 1

Grading Method: Regular, Audit, Sat-Fail

0101	Arnaud Trouve	Seats (Total: 10)
	Contact instructor or department for details.	
	Contact instructor or department for details.	

ENFP629 **Selected Topics**

(Perm req)

Credits: 3-6

Grading Method: Regular, Audit, Sat-Fail

Current research, studies in fire protection engineering. Future trends and significant changes in research, professional areas. The professional standards process.

Contact department for information to register for this course.

ENFP649 **Special Problems**

(Perm req)

Credits: 1-3

Grading Method: Regular, Audit, Sat-Fail

Advanced topics selected by the faculty from the current literature to suit the special needs and background of students, or for individual students who have definite plans of individual study.

Prerequisite: permission of department.

Contact department for information to register for this course.

ENFP652 **Fire Assessment Methods**

Credits: 3

Grading Method: Regular, Audit, Sat-Fail

Credit only granted for: ENFP629B or ENFP652. Formerly: ENFP629B.

This on-line course offers a comprehensive review of experimental techniques to assess fire performance characteristics of materials, products and assemblies.

EF01	Marc Janssens	Seats (Total: 40)
	Meets March 9, 2020 - May 29, 2020	
	Class time/details on ELMs	ONLINE

ENFP653 **Advanced Fire Supression**

(Perm req)

Credits: 3

Grading Method: Regular, Audit, Sat-Fail

Restriction: Permission of ENGR-Fire Protection Engineering department. Credit only granted for: ENFP410, ENFP489L, ENFP653, or ENFP629C. Formerly: ENFP629C.

Issues related to the suppression of fires and the design of fire suppression systems. Theoretical aspects of fire suppression and extinction are considered to provide the foundation for the practical design of different types of fire suppression systems. Focus on water-based and "clean agent" fire suppression systems, with emphasis on high challenge and special hazard applications. Systems using other agents are introduced, but are not addressed in detail.

0101	Kenneth Isman	Seats (Total: 10)
	TuTh 9:30am - 10:45am	IRB 1207

ENFP661 **Forensic Fire Analysis**

Credits: 3 Grading Method: Regular, Audit, Sat-Fail

Credit only granted for: ENFP629D or ENFP661. Formerly: ENFP629D.

This on-line course addresses the forensic analysis of structural fire incidents in terms of enclosure fire dynamics and the impact of fire safety subsystems used to prevent or mitigate the consequences of fire. These subsystems include: ignition prevention, material flammability and flame spread, fire detection and alarm, fire suppression, smoke movement and management, structural fire protection and egress systems. Failures in these subsystems are addressed in terms of differences between expected and observed performance.

EF01	Gerald Haynes, David Icove	Seats (Total: 40)
	Meets March 9, 2020 - May 29, 2020	
	Class time/details on ELMs	ONLINE

ENFP665 **Advanced Fire and Explosion Investigations**

(Perm req)

Credits: 3 Grading Method: Regular, Audit, Sat-Fail

Restriction: Permission of ENGR-A. James Clark School of Engineering. Jointly offered with ENFP465. Credit only granted for: ENFP629N, ENFP48 9N OR ENFP465. Formerly: ENFP629N. Additional information: The course will be taught as a dual senior-level undergraduate course and gradu ate course.

Presents an overview of fire and explosion investigation and reconstruction. Information on field techniques, applicable standards and best practices will be presented along with how fire science and fire dynamics can be applied to forensic analysis. Additionally laboratory work will be conducted to illustrate the application of fire dynamics to forensic scenes to assist in the determination of cause and evaluation of potential fire growth scenarios. Sample experiments include 2nd item ignition tests, ignition delay tests, and the course culminates with a series of 1:12 reduced scale house burns to allow the students to investigate and document a fire. This course also qualifies the student to sit for the NAFI Certified Fire Investigator test.

0101	Noah Ryder M 5:30pm - 8:00pm	Seats (Total: 16) JMP 1109

ENFP799 **Master's Thesis Research**

(Perm req)

Credits: 1-6 Grading Method: Sat-Fail

Development and completion of Master's Thesis.

Contact department for information to register for this course.

ENGL English Spring 2020

FOR MORE DETAILED DESCRIPTIONS OF THE COURSES OFFERED, CLICK HERE TO VISIT THE ENGLISH DEPARTMENT WEBSITE English as a second language classes are listed under UMEI.

ENGL101 **Academic Writing**

Credits: 3 Grading Method: Regular, Pass-Fail General Education: FSAW

Additional information: Any student who has not successfully completed this course by Fall 2017 must complete this course with a minimum grade of C- in order to fulfill the General Education Fundamental Studies Academic Writing requirement.

An introductory course in expository writing.

Students with a TSWE score of 33 or below must take ENGL 101A in place of ENGL 101. Students for whom English is a second language should consider taking ENGL 101X in place of ENGL 101.

0001	Benjamin Baker MWF 8:00am - 8:50am	Seats (Total: 19) TWS 0201
0002	Michael Dignan MWF 8:00am - 8:50am	Seats (Total: 19) TWS 0214

0101	Benjamin Baker MWF 9:00am - 9:50am	Seats (Total: 19) TWS 0221
0102	Max Lasky MWF 9:00am - 9:50am	Seats (Total: 19) TWS 0214
0103	Tonianne Bellomo MWF 9:00am - 9:50am	Seats (Total: 19) TWS 1106
0104	Tamar Leroy MWF 9:00am - 9:50am	Seats (Total: 19) TWS 0236
0105	Maggie Gill MWF 9:00am - 9:50am	Seats (Total: 19) TWS 0205
0203	Stephanie Allen MWF 10:00am - 10:50am	Seats (Total: 19) TWS 0205
0204	Sabrina Islam MWF 10:00am - 10:50am	Seats (Total: 19) ASY 3221
0206	Joshua Weiss MWF 10:00am - 10:50am	Seats (Total: 19) KEY 0125
0207	Benjamin Baker MWF 10:00am - 10:50am	Seats (Total: 19) TWS 1321
0301	Tamar Leroy MWF 11:00am - 11:50am	Seats (Total: 19) ASY 3217
0302	Kristine Morrissey MWF 11:00am - 11:50am	Seats (Total: 19) KEY 0120
0304	Megan Howell MWF 11:00am - 11:50am	Seats (Total: 19) KEY 0121
0308	Sabrina Islam MWF 11:00am - 11:50am	Seats (Total: 19) EDU 3236
0309	Stephanie Allen MWF 11:00am - 11:50am	Seats (Total: 19) EDU 2119

0401	Maggie Gill MWF 12:00pm - 12:50pm	Seats (Total: 19) KEY 0123
0403	Paul Cote MWF 12:00pm - 12:50pm	Seats (Total: 19) JMZ 0205
0404	Kyle Bickoff MWF 12:00pm - 12:50pm	Seats (Total: 19) ASY 3217
0406	Kristine Morrissey MWF 12:00pm - 12:50pm	Seats (Total: 19) KEY 0121
0407	John Pugh MWF 12:00pm - 12:50pm	Seats (Total: 19) KNI 1105
0501	Benjamin Baker MWF 1:00pm - 1:50pm	Seats (Total: 19) ASY 3217
0502	Alannah Hensley MWF 1:00pm - 1:50pm	Seats (Total: 19) KEY 0123
0504	Joshua Weiss MWF 1:00pm - 1:50pm	Seats (Total: 19) KNI 1105
0507	Paul Cote MWF 1:00pm - 1:50pm	Seats (Total: 19) TWS 0201
0601	Elizabeth Catchmark MWF 2:00pm - 2:50pm	Seats (Total: 19) KEY 0102
0602	Thibault Raoult MWF 2:00pm - 2:50pm	Seats (Total: 19) TWS 0221
0603	Shonte Murray-Daniels MWF 2:00pm - 2:50pm	Seats (Total: 19) TWS 0207
0604	Hunter Parsons MWF 2:00pm - 2:50pm	Seats (Total: 19) EDU 3233
0701	Nia Crawford MW 5:00pm - 6:15pm	Seats (Total: 19) TWS 1105

0702	Erica Cochran MW 6:30pm - 7:45pm	Seats (Total: 19) KEY 0121
1001	Peter Witte TuTh 8:00am - 9:15am	Seats (Total: 19) TWS 0205
1002	Kelsey Kerr TuTh 8:00am - 9:15am	Seats (Total: 19) TWS 0236
1101	Melvette Davis TuTh 9:30am - 10:45am	Seats (Total: 19) ASY 3221
1102	Kathleen Buckley TuTh 9:30am - 10:45am	Seats (Total: 19) TWS 1313
1104	Lara Payne TuTh 9:30am - 10:45am	Seats (Total: 19) KEY 0125
1106	William Pittman TuTh 9:30am - 10:45am	Seats (Total: 19) KEY 0102
1108	Kelsey Kerr TuTh 9:30am - 10:45am	Seats (Total: 19) TWS 1107
1109	Radford Skudrna TuTh 9:30am - 10:45am	Seats (Total: 19) TWS 1105
1203	Justin Lohr TuTh 11:00am - 12:15pm	Seats (Total: 19) TWS 1313
1204	Kelsey Kerr TuTh 11:00am - 12:15pm	Seats (Total: 19) TWS 1107
1205	Lara Payne TuTh 11:00am - 12:15pm	Seats (Total: 19) KEY 0123
1206	Mike Kolakoski TuTh 11:00am - 12:15pm	Seats (Total: 19) KNI 1103
1208	Jehane Sharah TuTh 11:00am - 12:15pm	Seats (Total: 19) KEY 0125

1301	Brandy Williams TuTh 12:30pm - 1:45pm	Seats (Total: 19) TWS 1107
1302	Nicole Cuffy TuTh 12:30pm - 1:45pm	Seats (Total: 19) TWS 1320
1303	Jehane Sharah TuTh 12:30pm - 1:45pm	Seats (Total: 19) KEY 0125
1304	Radford Skudrna TuTh 12:30pm - 1:45pm	Seats (Total: 19) TWS 1313
1305	William Pittman TuTh 12:30pm - 1:45pm	Seats (Total: 19) JMZ 2123
1401	Nicole Cuffy TuTh 2:00pm - 3:15pm	Seats (Total: 19) TWS 1320
1402	Maiasia Grimes TuTh 2:00pm - 3:15pm	Seats (Total: 19) KEY 0125
1403	Kathleen Buckley TuTh 2:00pm - 3:15pm	Seats (Total: 19) KNI 1105
1404	Dominique Young TuTh 2:00pm - 3:15pm	Seats (Total: 19) JMZ 2123
1405	Mike Kolakoski TuTh 2:00pm - 3:15pm	Seats (Total: 19) JMZ 0125
1601	Erica Cochran TuTh 5:00pm - 6:15pm	Seats (Total: 19) TWS 0236
1701	Erica Cochran TuTh 6:30pm - 7:45pm	Seats (Total: 19) TWS 0205
9001	Amanda Allen Tu 9:30am - 10:45am Th 9:30am - 10:45am	Seats (Total: 19) KEY 0120 ONLINE

9002	Susan Pramschufer Tu 11:00am - 12:15pm Th 11:00am - 12:15pm	Seats (Total: 19) KEY 0120 ONLINE
9003	John Macintosh Th 9:30am - 10:45am Tu 9:30am - 10:45am	Seats (Total: 19) KEY 0120 ONLINE
9004	John Macintosh Th 11:00am - 12:15pm Tu 11:00am - 12:15pm	Seats (Total: 19) KEY 0120 ONLINE
9005	David Brookshire MF 12:00pm - 12:50pm Class time/details on ELMs	Seats (Total: 19) KEY 0120 ONLINE
9006	David Brookshire MF 1:00pm - 1:50pm Class time/details on ELMs	Seats (Total: 19) KEY 0120 ONLINE
9007	John Kim Tu 9:30am - 10:45am Th 9:30am - 10:45am	Seats (Total: 19) EDU 3233 ONLINE
9008	Amanda Allen Tu 11:00am - 12:15pm Th 11:00am - 12:15pm	Seats (Total: 19) JMZ 1120 ONLINE
9009	Amanda Allen Tu 12:30pm - 1:45pm Th 12:30pm - 1:45pm	Seats (Total: 19) KEY 0120 ONLINE
9010	Amanda Allen Tu 2:00pm - 3:15pm Th 2:00pm - 3:15pm	Seats (Total: 19) KEY 0120 ONLINE
9011	Emily Flamm MW 10:00am - 10:50am Class time/details on ELMs	Seats (Total: 19) TWS 0201 ONLINE

9012	Emily Flamm MW 11:00am - 11:50am Class time/details on ELMs	Seats (Total: 19) TWS 0201 ONLINE
9013	Roberto Leon MW 12:00pm - 12:50pm Class time/details on ELMs	Seats (Total: 19) TWS 0201 ONLINE
9014	Robert Lucci MW 1:00pm - 1:50pm Class time/details on ELMs	Seats (Total: 19) KEY 0121 ONLINE
9015	Tricia Raysor Th 9:30am - 10:45am Tu 9:30am - 10:45am	Seats (Total: 19) VMH 1107 ONLINE
9016	Sara Faradji Th 11:00am - 12:15pm Tu 11:00am - 12:15pm	Seats (Total: 19) EDU 2102 ONLINE
9017	Tricia Raysor Th 12:30pm - 1:45pm Tu 12:30pm - 1:45pm	Seats (Total: 19) KEY 0120 ONLINE
9018	Tricia Raysor Th 2:00pm - 3:15pm Tu 2:00pm - 3:15pm	Seats (Total: 19) KEY 0120 ONLINE
9019	David Brookshire MF 10:00am - 10:50am Class time/details on ELMs	Seats (Total: 19) KEY 0123 ONLINE
9020	David Brookshire MF 11:00am - 11:50am Class time/details on ELMs	Seats (Total: 19) KEY 0123 ONLINE
9021	Susan Pramschufer Tu 12:30pm - 1:45pm Th 12:30pm - 1:45pm	Seats (Total: 19) KEY 0102 ONLINE

9022	Rachel Waugh Th 12:30pm - 1:45pm Tu 12:30pm - 1:45pm	Seats (Total: 19) EDU 3233 ONLINE

ENGL101H **Academic Writing**

Credits: 3 | Grading Method: Regular, Pass-Fail | General Education: FSAW

Additional information: Any student who has not successfully completed this course by Fall 2017 must complete this course with a minimum grade of C- in order to fulfill the General Education Fundamental Studies Academic Writing requirement.

An introductory course in expository writing.

0408	Steve Beaulieu MWF 12:00pm - 12:50pm	Seats (Total: 19) EDU 3236
0507	Samantha O'Connor TuTh 8:00am - 9:15am	Seats (Total: 19) TWS 0214

ENGL101S **Academic Writing**

Credits: 3 | Grading Method: Regular, Pass-Fail | General Education: FSAW

Additional information: Any student who has not successfully completed this course by Fall 2017 must complete this course with a minimum grade of C- in order to fulfill the General Education Fundamental Studies Academic Writing requirement.

An introductory course in expository writing.

Restricted to College Park Scholars.

0109	Daniel Quimby MWF 9:00am - 9:50am	Seats (Total: 19) CCC 1105
0209	Ayesha Shibli MWF 10:00am - 10:50am	Seats (Total: 19) CCC 1105
0309	Ayesha Shibli MWF 11:00am - 11:50am	Seats (Total: 19) CCC 1105

0609	Sabrina Islam MWF 2:00pm - 2:50pm	Seats (Total: 19) CCC 1105
1109	Katherine Joshi TuTh 9:30am - 10:45am	Seats (Total: 19) CCC 1115
1209	Katherine Joshi TuTh 11:00am - 12:15pm	Seats (Total: 19) CCC 1105
1309	Grace Kwon TuTh 12:30pm - 1:45pm	Seats (Total: 19) CCC 1115
1409	Jesse Brooks TuTh 2:00pm - 3:15pm	Seats (Total: 19) CCC 1105
9001	Catherine Bayly MF 12:00pm - 12:50pm Class time/details on ELMs	Seats (Total: 19) CCC 1105 ONLINE
9002	Catherine Bayly MF 1:00pm - 1:50pm Class time/details on ELMs	Seats (Total: 19) CCC 1105 ONLINE

ENGL101X **Academic Writing**

Credits: 3 | Grading Method: Regular, Pass-Fail | General Education: FSAW

Additional information: Any student who has not successfully completed this course by Fall 2017 must complete this course with a minimum grade of C- in order to fulfill the General Education Fundamental Studies Academic Writing requirement.

An introductory course in expository writing.

Limited to students for whom English is a second language. To register for ENGL 101X, a student must first demonstrate competence in English. Proof of one of the following should be brought to advisors: 1) a minimu m score of 100 on the iBT 2) a minimum score of 7 on the IELTS or 3) successful completion of UMEI 005, Advanced English as a Foreign Language, Semi-Intensive.

2003	William Pittman TuTh 11:00am - 12:15pm	Seats (Total: 18) JMZ 2207

2004	Laura Williams MWF 10:00am - 10:50am	Seats (Total: 18) JMZ 0122	
2005	Laura Williams MWF 12:00pm - 12:50pm	Seats (Total: 18) JMZ 3205	
2006	Marina Seamans TuTh 2:00pm - 3:15pm	Seats (Total: 18) ASY 3215	

ENGL125 **Why Poetry Matters**

Credits: 3 | Grading Method: Regular, Pass-Fail | General Education: DSHU, SCIS

Credit only granted for: ENGL125 or ENGL289P. Formerly: ENGL289P.

Introduction to the formal fundamentals of poetry and exploration of the role poetry plays in how we think about the human condition; what constitutes knowledge and wisdom, interior subjectivity and communal identity; and how this knowledge is to be used in confronting new challenges and the perennial questions: how to live with oneself, and as oneself; in time, and with others; here, where we reside; and elsewhere, where we imagine ourselves going.

0101	Michael Collier MW 12:00pm - 12:50pm F 10:00am - 10:50am	Seats (Total: 22) JMZ 0220 TWS 0201	Discussion
0102	Michael Collier MW 12:00pm - 12:50pm F 11:00am - 11:50am	Seats (Total: 22) JMZ 0220 TWS 0201	Discussion
0103	Michael Collier MW 12:00pm - 12:50pm F 11:00am - 11:50am	Seats (Total: 22) JMZ 0220 TWS 0205	Discussion
0104	Michael Collier MW 12:00pm - 12:50pm F 12:00pm - 12:50pm	Seats (Total: 22) JMZ 0220 TWS 0201	Discussion
0105	Michael Collier MW 12:00pm - 12:50pm F 1:00pm - 1:50pm	Seats (Total: 22) JMZ 0220 TWS 3132	Discussion

0106	Michael Collier MW 12:00pm - 12:50pm F 2:00pm - 2:50pm	Seats (Total: 22) JMZ 0220 TWS 0201	Discussion

ENGL142 **Literary Maryland**

Credits: 3 | Grading Method: Regular, Pass-Fail | General Education: DSHU, DVUP, SCIS

Credit only granted for: ENGL142 or ENGL289M. Formerly: ENGL289M.

What does the literature of Maryland teach us about our state's past, present, and future? "Literary Maryland" explores this question by taking students on a tour of our state's prose, poetry, and drama from colonization to the present. In addition to reading fascinating writing and visiting interesting places, you'll learn how the Chesapeake was formed; why nobody sings the entire national anthem; and what led Baltimore to name its football team after a poem written by a Virginian.

0101	Randy Ontiveros MW 10:00am - 10:50am F 10:00am - 10:50am	Seats (Total: 24) ESJ 1202 TWS 1106	Discussion
0102	Randy Ontiveros MW 10:00am - 10:50am F 12:00pm - 12:50pm	Seats (Total: 24) ESJ 1202 TWS 1106	Discussion
0103	Randy Ontiveros MW 10:00am - 10:50am F 1:00pm - 1:50pm	Seats (Total: 24) ESJ 1202 TWS 1106	Discussion
0104	Randy Ontiveros MW 10:00am - 10:50am F 11:00am - 11:50am	Seats (Total: 24) ESJ 1202 TWS 1106	Discussion

ENGL146 **Seeing the Present: Graphic Storytelling in the Age of Social Media**

Credits: 3 | Grading Method: Regular, Pass-Fail, Audit | General Education: DSHU, DVUP, SCIS

We increasingly live in a world dominated by digital images: graphic narratives, data visualizations, tweets, GIFs, and computer animation. Students will learn how to critically analyze this digital visual rhetoric and how to become a skilled user of visual discourse. By examining a range of science fiction, graphic novels, photography, and films, we will develop a critical vocabulary for understanding the possibilities and perils of our digital image culture. We will apply this vocabulary to analyzing visual representations of contemporary political questions including: climate change, criminal justice, bio-technological transformations of the human, and the incorporation of algorithm-based platforms into everyday life.

0101	Lee Konstantinou MW 1:00pm - 1:50pm F 10:00am - 10:50am	Seats (Total: 24) TWS 1100 TWS 0214	 Discussion
0102	Lee Konstantinou MW 1:00pm - 1:50pm F 11:00am - 11:50am	Seats (Total: 24) TWS 1100 TWS 1107	 Discussion
0103	Lee Konstantinou MW 1:00pm - 1:50pm F 12:00pm - 12:50pm	Seats (Total: 24) TWS 1100 TWS 0214	 Discussion
0104	Lee Konstantinou MW 1:00pm - 1:50pm F 1:00pm - 1:50pm	Seats (Total: 24) TWS 1100 TWS 0214	 Discussion

ENGL152 **What is Justice?: Literature and the Invention of Ethical Imagination**

Credits: 3 | Grading Method: Regular, Pass-Fail | General Education: DSHU, SCIS

Exploration of literature's unique ability to animate human passions underlying ethical dilemmas. How literary texts shape understanding of justice; how plays, novels, and films define, critique, challenge, and even alter society's comprehension of equity and inequity, crime and punishment, pardon and torture, and ideas about civil liberties and human rights. Attention to how writers have described just and unjust within their historical moment; crucial role of imagination in formation of ethical citizens across time.

0101	Jeffrey Griswold MWF 10:00am - 10:50am	Seats (Total: 30) TWS 0221	
0201	Jeffrey Griswold MWF 12:00pm - 12:50pm	Seats (Total: 30) TWS 0205	

ENGL202 **Inventing Western Literature: Renaissance to Modern**

Credits: 3 | Grading Method: Regular, Pass-Fail, Audit | CORE: HL | General Education: DSHU

Wide range of texts from the Renaissance to the 21st century. Themes and literary techniques in the evolution of Western literature. Print publication, industrialization, questioning of religious, political, intellectual, and cultural authority.

0101	Cristi Whiskey	Seats (Total: 30)
	MWF 11:00am - 11:50am	TWS 0214

ENGL211 **English Literature: Beginnings to 1800**

Credits: 3 | Grading Method: Regular, Pass-Fail, Audit | CORE: HL | General Education: DSHU

Surveys medieval and early modern literary works written in England. Readings may include Beowulf, Chaucer, Spenser, Mary Wroth, Milton; eighteenth-century satire, drama, novels.

0101	April Fuller	Seats (Total: 30)
	MW 3:30pm - 4:45pm	TWS 1107

ENGL212 **English Literature: 1800 to the Present**

Credits: 3 | Grading Method: Regular, Pass-Fail, Audit | CORE: HL | General Education: DSHU

Surveys the major literary movements of the period, from Romantic to Victorian to Modern. Such authors as Wordsworth, Keats, Bronte, Tennyson, Browning, Yeats, Joyce, Woolf.

0101	Justin Thompson	Seats (Total: 30)
	MWF 10:00am - 10:50am	KNI 1105

ENGL222 **American Literature: 1865 to Present**

Credits: 3 | Grading Method: Regular, Pass-Fail, Audit | CORE: HL | General Education: DSHU

Surveys American writing from the Civil War through the Cold War. Authors such as Clemens, Frost, Hurston, Bellow.

0101	Jeannette Schollaert	Seats (Total: 30)
	TuTh 11:00am - 12:15pm	SQH 1121

ENGL233 **Introduction to Asian American Literature**

Credits: 3	Grading Method: Regular, Pass-Fail, Audit	CORE: HL, D	General Education: DSHU, DVUP

Cross-listed with AAST233. Credit only granted for: ENGL233 or AAST233.

A survey of Asian American literatures with an emphasis on recurrent themes and historical context.

0101	Kerishma Panigrahi TuTh 9:30am - 10:45am	Seats (Total: 30) ASY 3219

ENGL234 African-American Literature and Culture

Credits: 3	Grading Method: Regular, Pass-Fail, Audit	CORE: HL, D	General Education: DSHU, DVUP

Cross-listed with: AASP298L. Credit only granted for: ENGL234 or AASP298L.

An exploration of the stories black authors tell about themselves, their communities, and the nation as informed by time and place, gender, sexuality, and class. African American perspective themes such as art, childhood, sexuality, marriage, alienation and mortality, as well as representations of slavery, Reconstruction, racial violence and the Nadir, legalized racism and segregation, black patriotism and black ex-patriots, the optimism of integration, and the prospects of a post-racial America.

Cross-listed with AASP298L. Credit granted for AASP298L or ENGL234.

0101	Mike Kolakoski TuTh 12:30pm - 1:45pm	Seats (Total: 30) TWS 0214
0201	Andy Yeh MWF 1:00pm - 1:50pm	Seats (Total: 30) KEY 0125

ENGL235 U.S. Latinx Literature and Culture

Credits: 3	Grading Method: Regular, Pass-Fail	CORE: HL, D	General Education: DSHU, DVUP

Cross-listed with: AMST298Q. Credit only granted for: ENGL235 or AMST298Q.

Examines the poetry, prose, and theater of Latinx communities in the United States from their origins in the Spanish colonization of North America to their ongoing development in the 21st century. Considers how authors use literary form to gain insight into human experience, including mortality, religious belief, gender and sexuality, war and peace, family, language use, scientific inquiry, cultural tradition, ecology, and labor. Also studies how Latinx literary traditions have shaped and been shaped by broader currents in American literature, as well as what connections exist between Latinx literature and social and artistic developments in other parts of the world, particularly Latin America and the Caribbean. Authors may include Alvar Nunez Cabeza de Vaca, Eulalia Perez, Juan Nepomuceno Seguin, Maria Amparo Ruiz de Burton, Jose Marti, Arthur A. Schomburg, Jesus Colon, Julia de Burgos, Cesar Chavez, Ariel Dorfman, Gloria Anzaldua, Junot Diaz, and Cristina Garcia.

Cross-listed with AMST298Q. Credit granted for ENGL235 or AMST298Q.

0101	Kristofer Reed	Seats (Total: 30)
	MWF 11:00am - 11:50am	KEY 0125

ENGL241 **What the Novel Does**

Credits: 3	Grading Method: Regular, Pass-Fail, Audit	CORE: HL	General Education: DSHU

An exploration of what the novel does that cannot be done by film, by television, by cell-phone screens, by any stream of images, or by textual excerpts pulled up for a quick read. The different ways of the novel, with particular focus on the process of thinking and the developed consciousness. The novel as a machine to think with and an irreplaceable model of complex human thought. Study of how thought is presented in radically different ways in novels that cross lines of class, gender, chronology, and nationality.

0101	Konstantinos Pozoukidis	Seats (Total: 30)
	TuTh 5:00pm - 6:15pm	TWS 0205

ENGL243 **What is Poetry?**

Credits: 3	Grading Method: Regular, Pass-Fail, Audit	CORE: HL	General Education: DSHU

An exploration of arguably the most complex, profound, and ubiquitous expression of human experience. Study through close reading of significant forms and conventions of Western poetic tradition. Poetry's roots in oral and folk traditions and connections to popular song forms.

0401	Garth Libhart	Seats (Total: 30)
	TuTh 3:30pm - 4:45pm	TWS 0214

ENGL244 **The Play's the Thing**

Credits: 3 | Grading Method: Regular, Pass-Fail, Audit | CORE: HL | General Education: DSHU

Exploration of drama through a consideration of plot, narrative flow, analytical flow, staging, performance, manuscript and printing history, text and textual change over time, and interpretation. Plays will be approached as public attempts to understand what it means to be alive.

Contact department for information to register for this course.

ENGL245 **Film Form and Culture**

Credits: 3 | Grading Method: Regular, Pass-Fail, Audit | CORE: HA | General Education: DSHU

Cross-listed with FILM245. Credit only granted for: ENGL245 or FILM245.

Introduction to film as art form and how films create meaning. Basic film terminology; fundamental principles of film form, film narrative, and film history. Examination of film technique and style over past one hundred years. Social and economic functions of film within broader institutional, economic, and cultural contexts.

Restriction: Must not have completed ENGL245 or FILM245. Also offered as: ENGL245. Credit only granted for: CMLT214, CMLT245 or FILM 245. Formerly: CMLT214."

0201	Jeffrey Moro TuTh 2:00pm - 3:15pm	Seats (Total: 30) TWS 0320
0301	Dominique Young TuTh 11:00am - 12:15pm	Seats (Total: 30) TWS 0320
0401	Paul Cote TuTh 11:00am - 12:15pm	Seats (Total: 30) TWS 0221

ENGL246 **Introduction to the Short Story**

Credits: 3 | Grading Method: Regular, Pass-Fail, Audit | CORE: HL | General Education: DSHU

A survey of the genre, with a focus on significant elements, such as plot, character, description, style, and theme. Readings will be drawn from a range of cultures and communities.

0101	Hillary Roegelein MWF 10:00am - 10:50am	Seats (Total: 30) KEY 0102

ENGL250 **Reading Women Writing**

Credits: 3	Grading Method: Regular, Pass-Fail, Audit	CORE: HL, D	General Education: DSHU, DVUP

Cross-listed with WMST255. Credit only granted for: ENGL250 or WMST255.

Explores literary and cultural expressions by women and their receptions within a range of historical periods and genres. Topics such as what does a woman need in order to write, what role does gender play in the production, consumption, and interpretation of texts, and to what extent do women comprise a distinct literary subculture. Interpretation of texts will be guided by feminist and gender theory, ways of reading that have emerged as important to literary studies over the last four decades.

0201	Fatima Taha	Seats (Total: 30)
	TuTh 2:00pm - 3:15pm	TWS 0201

ENGL255 Literature of Science and Technology

Credits: 3	Grading Method: Regular, Pass-Fail, Audit	CORE: HL	General Education: DSHU

Examines science and technology through the lens of British and American literature, primarily between 1800 and the present. Readings from early natural and experimental philosophers of the Scientific Revolution and Enlightenment. How literary works represent the ethics of science and technology; beneficial developments of science, and also heavy toll of industrialization. Writers studied may include Francis Bacon, Mary Shelley, Charles Darwin, H.G. Wells, Albert Einstein, Aldous Huxley, Richard Feynman, Philip K. Dick, Octavia Butler, Michael Frayn, and Tom Stoppard.

0201	Alexandria Nunn	Seats (Total: 30)
	MWF 12:00pm - 12:50pm	KEY 0125

ENGL256 Fantasy Literature

Credits: 3	Grading Method: Regular, Pass-Fail, Audit	General Education: DSHU

How fantasy employs alternate forms of representation, such as the fantastical, estranging, or impossible, which other genres would not allow. Through novels, short stories, graphic novels, and film, traces fantasy's roots in mythology and folklore, then explores how modern texts build upon or challenge these origins. Examination of literary strategies texts use to represent the world through speculative modes. How to distinguish fantasy from, and relate it to, other genres such as science fiction, horror, fairly tales, and magical realism. Fantasy's investment in world-building, history, tradition, and categories of identity such as race, class, and gender. How fantasy, as a genre, form, and world-view, is well-suited to our contemporary reality.

0101	Tung-An Wei	Seats (Total: 30)
	TuTh 12:30pm - 1:45pm	TWS 0221

ENGL262 **Introduction to the Hebrew Bible/Old Testament**

Credits: 3	Grading Method: Regular, Pass-Fail, Audit	CORE: HL	General Education: DSHU

Cross-listed with: JWST262, HEBR298B. Credit only granted for: JWST262, HEBR293B, or ENGL262.

Origins of the Hebrew Bible (Old Testament), with attention to literary formations, archaeology, and social-political settings. Explorations of major questions, including who wrote the Bible, and when; relationships of the biblical tradition to the mythology and religious structures of ancient Israel's near eastern neighbors; and dynamics of politics, religious leadership, and law.

0101	Maxine Grossman MW 2:00pm - 3:15pm	Seats (Total: 40) HJP 2242

ENGL265 **LGBTQ+ Literatures and Media**

Credits: 3	Grading Method: Regular, Pass-Fail, Audit	CORE: HL, D	General Education: DSHU, DVUP

Restriction: Must not have completed LGBT265. Cross-listed with LGBT265 . Credit only granted for: ENGL265 or LGBT265.

A study of literary and cultural expressions of queer and trans identities, positionalities, and analytics through an exploration of literature, art, and media. We will examine historical and political power relations by considering the intersections of sexuality and gender with race, class, nation, and disability. Topics include the social construction and regulation of sexuality and gender, performance and performativity, intersectionality, and the relationship between aesthetic forms and queer/ trans subjectivity. Our interpretations will be informed by queer and trans theories.

0101	Shalom Rosenberg TuTh 12:30pm - 1:45pm	Seats (Total: 30) VMH 1207
0201	Virginia Butler MWF 1:00pm - 1:50pm	Seats (Total: 30) TWS 0236

ENGL269B **Special Topics in Study Abroad II; Writing Workshop I**

Credits: 3	Grading Method: Regular, Pass-Fail, Audit

Special topics course taken as part of an approved study abroad program.

Contact department for information to register for this course.

ENGL269C **Special Topics in Study Abroad II; Writing Workshop II**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Special topics course taken as part of an approved study abroad program.

Contact department for information to register for this course.

ENGL269R **Special Topics in Study Abroad II; Writing Rome**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Special topics course taken as part of an approved study abroad program.

Contact department for information to register for this course.

ENGL269X **Special Topics in Study Abroad II; Theories of Text**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Special topics course taken as part of an approved study abroad program.

Contact department for information to register for this course.

ENGL271 **Writing Poems and Stories: An Introductory Workshop**

Credits: 3 Grading Method: Regular, Pass-Fail General Education: DSSP

Introduction to theory and practice of writing fiction and poetry. Emphasis on critical reading of literary models. Exercises and workshop discussions with continual reference to modeling, drafting, and revising as necessary stages in a creative process.

0101	Elizabeth Nonemaker TuTh 11:00am - 12:15pm	Seats (Total: 15) KEY 0121
0102	Elizabeth Nonemaker TuTh 11:00am - 12:15pm *Restricted to students in the Jiminez-Porter Writers' House.*	Seats (Total: 5) KEY 0121
0201	Claudia Rojas TuTh 8:00am - 9:15am	Seats (Total: 20) TWS 1313
0301	Bryan Head MW 2:00pm - 3:15pm	Seats (Total: 20) KEY 0125

ENGL272 **Writing Fiction: A Beginning Workshop**

Credits: 3 | Grading Method: Regular, Pass-Fail | General Education: DSSP

Introduction to theory and practice of writing fiction. Emphasis on critical reading of literary models. Exercises and workshop discussions with continual reference to modeling, drafting, and revising as necessary stages in a creative process.

0101	Chika Onyenezi TuTh 8:00am - 9:15am	Seats (Total: 20) TWS 1321
0201	Lisa Latouche TuTh 9:30am - 10:45am	Seats (Total: 20) KEY 0121
0301	Caroline Rothrock MW 2:00pm - 3:15pm	Seats (Total: 20) TWS 1107
0401	Kiera Wolfe TuTh 9:30am - 10:45am	Seats (Total: 20) TWS 3132

ENGL273 **Writing Poetry: A Beginning Workshop**

Credits: 3 | Grading Method: Regular, Pass-Fail | General Education: DSSP

Introduction to theory and practice of writing poetry. Emphasis on critical reading of literary models. Exercises and workshop discussions with continual reference to modeling, drafting, and revising as necessary stages in a creative process.

0101	Kathryn Karoly TuTh 9:30am - 10:45am	Seats (Total: 20) TWS 3252
0201	Connor Watkins MWF 11:00am - 11:50am	Seats (Total: 20) KEY 0102

ENGL275 **Scriptwriting for Theater, Film, and Television**

Credits: 3 | Grading Method: Regular, Pass-Fail | General Education: DSHU, DSSP

Cross-listed with: ARHU275. Credit only granted for: ENGL275 or ARHU275.

Introduction to the theory and practice of scriptwriting with an opportunity to read, view, evaluate, write, and revise texts meant to be performed. Students will practice writing for the stage, film, and television and also examine selected scripts, performances, and film and television clips as models for their own creative work. Students will complete frequent writing exercises, participate in workshops, and learn to apply scholarship to the analysis and critique of scripts.

0101	Paul Cote MWF 10:00am - 10:50am	Seats (Total: 15) KEY 0120
0102	Paul Cote MWF 10:00am - 10:50am	Seats (Total: 5) KEY 0120
	This section is restricted to students in the Jimenez-Porter Writers' House.	

ENGL280 **The English Language**

Credits: 3 | Grading Method: Regular, Pass-Fail, Audit | CORE: HO | General Education: DSHU

Introduction to the structure of English and its historical development, with a focus on techniques of linguistic analysis. Major topics include the sound systems of English and its patterns of word formation and sentence structure, and the ways these have changed over time and vary around the world.

0101	Nathan Tillman TuTh 12:30pm - 1:45pm	Seats (Total: 30) TWS 0205

ENGL290 **Introduction to Digital Studies**

Credits: 3 | Grading Method: Regular, Pass-Fail, Audit | General Education: DSHU, DSSP

Introductory course in digital studies. Surveys contemporary humanities work in digital technologies, including the web and social media and their historical antecedents. Explores design and making as analytical tools alongside reading and writing. Situates digital media within power and politics and develops critical awareness of how media shape society and ethics. Interdisciplinary approaches to creativity, analysis, and technology. While the course will include hands-on practice, no prior experience of programming, designing, or making required other than a willingness to experiment and play.

0101	Brittany Starr MWF 12:00pm - 12:50pm	Seats (Total: 20) JMZ 1224

ENGL291 **Writing, Revising, Persuading**

Credits: 3 | Grading Method: Regular, Pass-Fail | General Education: DSHU, DSSP

Prerequisite: Must have satisfied Fundamental Studies Academic Writing requirement.

Intermediate-level, writing-intensive course for students who have successfully satisfied the Fundamental Studies Academic Writing requirement but wish to hone skills in analyzing and producing rhetorically attuned, well-styled prose. Deeper study of rhetorical theory and its application to a wide variety of arguments and situations. Additional writing practice, techniques of revision, study of effect of stylistic choices. Topics may include argumentation theory, visual rhetoric, stylistic theory, and writing theory.

Contact department for information to register for this course.

ENGL292 **Writing for Change**

Credits: 3	Grading Method: Regular, Pass-Fail, Audit	General Education: DSSP, DVUP

Prerequisite: Permission of ARHU-English department. Recommended: ENGL101. Restriction: Requires application and references.

Service learning in collaboration with students at area high schools. Explores how writing can be a tool for social change. Participants serve as mentors, create a performance event concerning a pressing social issue, and compose reflections, literacy narratives, publicity materials, and a multimodal project. Focus on developing critical self-awareness.

Jointly offered with ENGL388C. Credit granted ENGL292 or ENGL388C.

0101	Justin Lohr TuTh 2:00pm - 3:15pm Tu 12:30pm - 1:45pm	Seats (Total: 18) JMZ 0208 Location: TBA	 Lab

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ENGL293 **Writing in the Wireless World**

Credits: 3	Grading Method: Regular, Pass-Fail, Audit	CORE: HO	General Education: DSHU, DSSP

Recommended: ENGL101.

A hands-on exploration of writing at the intersection of technology and rhetoric. Students will learn to read, analyze, and compose the kinds of multimodal documents--documents combining text, image, and sound--that constitute communication in our digital world.

0101	Emilee Durand TuTh 2:00pm - 3:15pm	Seats (Total: 22) JMZ 0120

ENGL294 **Persuasion and Cleverness in Social Media**

Credits: 3 | Grading Method: Regular, Pass-Fail | General Education: DSHU, DSSP

Prerequisite: Must have satisfied Fundamental Studies Academic Writing requirement.

Exploration of various persuasive media encountered in daily life through the lens of rhetorical and critical theories. Principles of rhetoric and analysis of how persuasion functions across media. Invention of effective multimedia works appropriate to purpose, audience, and context. Concepts from cultural studies used to develop critical awareness about power and ideology and how they influence the way people produce and understand messages. By integration of technology, rhetoric, and cultural studies, students become more critically-rhetorically informed thinkers, authors, and audiences of arguments and culture in the digital age. Writing intensive course. No prior multimedia experience is expected.

0101	Radford Skudrna TuTh 3:30pm - 4:45pm	Seats (Total: 20) TWS 0224

ENGL297 Introduction to Professional Writing

Credits: 3 | Grading Method: Regular, Pass-Fail | General Education: DSSP

Prerequisite: ENGL101.

Introduction to the rhetorical principles and professional practices of professional writing, particularly the research, writing, communication, analytical, and technological skills needed for the Professional Writing minor. How culture and technology relate to the work of professional writing; design principles and rhetorical moves; digital tools, research skills, and writing strategies of professional writers. Develops skills needed to publish a writing portfolio that showcases students' professional writing competencies and projects your professional writer identities.

0101	Christopher Crane MW 2:00pm - 3:15pm	Seats (Total: 22) TWS 0224
0201	Katherine Joshi TuTh 2:00pm - 3:15pm	Seats (Total: 22) TWS 1105

ENGL301 This is English: Fields and Methods

Credits: 3 | Grading Method: Regular, Pass-Fail

Restriction: Must be in English Language and Literature program; or must be in Secondary Educ: English Language Arts program.

"English" means a lot of things. Are you looking for literature, or linguistics? For writing--creative, critical, or professional? For theater, or debate? For film, or even videogames? This gateway course for the English major introduces you to all of these areas and more, as well as to our discipline's unique resources for studying and enjoying them. The English discipline includes three main interpretive fields: Literary and Cultural Studies; Language, Writing, and Rhetoric; and Media Studies. This course brings together the fundamental concepts and methods for reading, viewing, and researching practiced in these fields, launching you into English studies and and helping you to choose the major track that is right for you.

0201	Randy Ontiveros MWF 12:00pm - 12:50pm	Seats (Total: 20) TWS 3132
0401	Theresa Coletti TuTh 11:00am - 12:15pm	Seats (Total: 20) TWS 3132
0501	Cheryl Spinner TuTh 12:30pm - 1:45pm	Seats (Total: 20) TWS 3132
0801	Sharada Balachandran Orihuela MW 2:00pm - 3:15pm	Seats (Total: 20) TWS 3132

ENGL302 **Medieval Literature in Translation**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Surveys major works of English and continental Middle Ages. Readings may include romance, lyric and drama, Germanic epic, works of Dante, Chretien de Troyes, Jean de Meun, Christine de Pisan, Malory, English and continental mystics.

0101	Thomas Moser TuTh 9:30am - 10:45am	Seats (Total: 25) TWS 1106

ENGL308A **Special Topics in Shakespeare; Shakespeare and Media**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

A topical exploration of William Shakespeare's plays and poems as well as their cultural contexts, performance history, and the roles they play in modern and contemporary culture

0101	Scott Trudell MW 2:00pm - 3:15pm	Seats (Total: 25) TWS 1321

ENGL317 **African American Literature**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit , D

Consideration of key texts in African American literature that explore the experiences of people of African descent in America from the mid-nineteenth century to the contemporary moment. Relationship between literary texts, historical events and cultural formations. Examines a range of texts and genres (autobiography, slave narrative, travel narrative, poetry, essays, fiction), and their contribution to national literary tradition.

Cross-listed with AASP398C and AMST328U. Credit granted for AASP398C, AMST328U, or ENGL317.

0101	Gail Upchurch	Seats (Total: 28)
	TuTh 2:00pm - 3:15pm	TWS 0236

ENGL329A **Special Topics in Film Studies; Cinema of Liberation**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Studies in various periods and genres of film.

Cross-listed with CMLT398C. Credit granted for ENGL329A or CMLT398C. Repeatable to 9 credits if content differs. Studies in various periods and genres of film.

0201	Eugene Robinson	Seats (Total: 25)
	Class time/details on ELMs	ONLINE

ENGL329E **Special Topics in Film Studies; Hollywood in the Golden Age, 1930-1950**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Studies in various periods and genres of film.

Prerequisite: ENGL245, FILM245, SLLC283, or FILM283; or permission of instructor.

0101	Marianne Conroy	Seats (Total: 30)
	TuTh 11:00am - 12:15pm	ESJ B0322

ENGL329Y **Special Topics in Film Studies; A Cinema of Migration as Message**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Studies in various periods and genres of film.

0201	Eugene Robinson Class time/details on ELMs	Seats (Total: 25) ONLINE

ENGL344 **Nineteenth-Century Fiction**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Major British, American, and other fiction writers of the nineteenth century studied in the context of the broad global, intellectual, and artistic interests of the century.

0101	Mike Kolakoski TuTh 9:30am - 10:45am	Seats (Total: 28) TWS 0236

ENGL349J **Asian American Literatures; New World Arrivals: Literature of Asian American Migration and Diaspora**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit , D

Study of selected writers, particular themes, or genres in Asian American literatures.

Cross-listed with AAST398J. Credit granted for AAST398J or ENGL349J.

0101	Edlie Wong TuTh 2:00pm - 3:15pm	Seats (Total: 28) TWS 1107

ENGL352 **Intermediate Fiction Workshop**

(Perm req)

Credits: 3 Grading Method: Regular, Pass-Fail

Prerequisite: Minimum grade of A- in ENGL271 or ENGL272; or permission of ARHU-English department.

A class in the making of fiction. Intensive discussion of students' own fiction. Readings include both fiction and essays about fiction by practicing writers. Writing short critical papers, responding to works of fiction, and the fiction of colleagues, in-class writing exercises, intensive reading, and thinking about literature, in equal parts, and attendance at readings.

0101	Rachel Waugh Th 3:30pm - 6:00pm	Seats (Total: 15) TWS 3252
0301	Gail Upchurch Tu 3:30pm - 6:00pm	Seats (Total: 15) TWS 3134

ENGL353 **Intermediate Poetry Workshop**

(Perm req)

Credits: 3

Grading Method: Regular, Pass-Fail

Prerequisite: Minimum grade of A- in ENGL271 or ENGL273; or permission of ARHU-English department.

A class in the making of poetry. Intensive discussion of students' own poems. Readings in both poetry and essays about poetry by practicing poets. Writing short critical prose pieces, responding critically to colleagues' poems, in-class and outside writing exercises, memorization, and attendance at poetry readings.

0101	Elizabeth Arnold	Seats (Total: 15)
	Th 3:30pm - 6:00pm	TWS 3250

ENGL354 **Intermediate Scriptwriting for Theater, Film, and Television**

(Perm req)

Credits: 3

Grading Method: Regular, Pass-Fail

Prerequisite: 1 course with a minimum grade of A- from (ENGL275, ARHU375, THET340).

Demystifies the art of dramatic writing. Students will come to understand that a play or screenplay is never a lecture, and that we write scripts to find out something about ourselves and the subjects we tackle. Students will analyze plays and screenplays, as well as workshop each others' scripts, to help them produce their own successful plays and screenplays written for the stage, screen, or box.

0101	Michael Olmert	Seats (Total: 15)
	Th 3:30pm - 6:00pm	TWS 0201

ENGL361 **Recovering Oral Histories**

Credits: 3

Grading Method: Regular, Pass-Fail

General Education: DSHU, DSSP

Prerequisite: Students must have completed one course in English, Latin American Studies, or Education.

Service-learning course that gives students an opportunity to develop writing, interviewing, and communication skills as they contribute to the work of a community organization. In the classroom, students will reflect on the process and do background research to understand the particular context of the organization's work. In the field, students will interview (or have informal discussions with) young people helped by the organization in order to construct a narrative about their lives, their perceptions of themselves, and their experiences.

Prerequisite: Must have completed at least one course in English or Latin American Studies. Credit only granted for: ENGL261 or ENGL361. Formerly: ENGL261/ENGL361

0101	Merle Collins	Seats (Total: 15)
	Tu 3:30pm - 6:00pm	TWS 0201

ENGL362 **Caribbean Literature in English**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit , D General Education: DSHU, DVUP

Cross-listed with: LASC348E. Credit only granted for: ENGL362 or LASC348E.

Political and literary traditions that intersect in the fiction, poetry, and drama written in English by Caribbean writers, primarily during the 20th century.

Cross-listed with LASC348E. Credit granted for ENGL362 or LASC348E.

0101	Merle Collins	Seats (Total: 20)
	TuTh 11:00am - 12:15pm	TWS 1321

ENGL369G **Special Topics in Study Abroad III; Adapting Literature to the Screen**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Special topics course taken as part of an approved study abroad program.

Contact department for information to register for this course.

ENGL369H **Special Topics in Study Abroad III; London Stage**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Special topics course taken as part of an approved study abroad program.

Contact department for information to register for this course.

ENGL369I **Special Topics in Study Abroad III; Images of Italy in the U.K. and U.S.A.**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Special topics course taken as part of an approved study abroad program.

Contact department for information to register for this course.

ENGL369L **Special Topics in Study Abroad III; Angloamerican Travelers in Spain**

Credits: 3

Grading Method: Regular, Pass-Fail, Audit

Special topics course taken as part of an approved study abroad program.

Contact department for information to register for this course.

ENGL369M **Special Topics in Study Abroad III; The Image of Barcelona in Literature**

Credits: 1-6

Grading Method: Regular, Pass-Fail, Audit

Special topics course taken as part of an approved study abroad program.

Contact department for information to register for this course.

ENGL369Q **Special Topics in Study Abroad III; Literature of the Shoah**

Credits: 3

Grading Method: Regular, Pass-Fail, Audit

Special topics course taken as part of an approved study abroad program.

Contact department for information to register for this course.

ENGL369X **Special Topics in Study Abroad III; Literature in Liguria**

Credits: 3

Grading Method: Regular, Pass-Fail, Audit

Special topics course taken as part of an approved study abroad program.

Contact department for information to register for this course.

ENGL369Z **Special Topics in Study Abroad III; The London Stage**

Credits: 3

Grading Method: Regular, Pass-Fail, Audit

Special topics course taken as part of an approved study abroad program.

Contact department for information to register for this course.

ENGL370 **Junior Honors Conference**

(Perm req)

Credits: 1

Grading Method: Regular, Pass-Fail, Audit

Restriction: Candidacy for honors in English.

Preparation for writing the senior honors project.

0101	Jason Rudy	Seats (Total: 20)
	W 3:30pm - 5:00pm	TWS 3132

ENGL378E **Special Topics in English; Videogames and Game Studies**

Credits: 3

Grading Method: Regular, Pass-Fail, Audit

Offers sustained attention to notable current themes and approaches in English studies. Topics vary by section and semester.

Students are encouraged to bring laptops to class meetings.

0101	Andrew Ferguson	Seats (Total: 25)
	MWF 11:00am - 11:50am	TWS 0221

ENGL378K **Special Topics in English; Narrating Madness**

Credits: 3

Grading Method: Regular, Pass-Fail, Audit

Offers sustained attention to notable current themes and approaches in English studies. Topics vary by section and semester.

0101	Maud Casey	Seats (Total: 28)
	TuTh 2:00pm - 3:15pm	TWS 1106
	In lieu of regular meetings on March 31 and April 2, the class will meet on Friday, April 3, from 1-4 p.m. at Red Dirt Studios in nearby Mt. Rainer for a session on collage-making. Contact the instructor for more details: mcasey@umd.edu.	

ENGL379A **Special Topics in Literature; Comparative Black and Native American Literature**

Credits: 3

Grading Method: Regular, Pass-Fail, Audit

Also offered as CMLT398F. Credit only granted for CMLT398F or ENGL379A.

0101	Chad Infante	Seats (Total: 25)
	TuTh 12:30pm - 1:45pm	TWS 1105

ENGL379D **Special Topics in Literature; Reparations and American Literature**

Credits: 3

Grading Method: Regular, Pass-Fail, Audit

0101	Peter Mallios TuTh 3:30pm - 4:45pm	Seats (Total: 25) TWS 0221

ENGL379R **Special Topics in Literature; The Jazz Paradigm**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Cross-listed with CMLT398D. Credit granted for CMLT398D or ENGL379R.

0201	Eugene Robinson Class time/details on ELMs	Seats (Total: 28) ONLINE

ENGL379T **Special Topics in Literature; Folklore, Themes, and Archetypes in Literature**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

0101	Michael Olmert TuTh 2:00pm - 3:15pm	Seats (Total: 28) TWS 0214

ENGL384 **Concepts of Grammar**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Introduction to the basic units of grammatical description; motivation for and nature of constituent structure and syntactic categories; fundamental grammatical concepts employed in the teaching and learning of languages.

0101	Michael Israel MW 2:00pm - 3:15pm	Seats (Total: 25) TWS 3136

ENGL385 **English Semantics**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

The study of meaning in language and language use. Examines how the senses of words and other linguistic constructions are mentally represented, and how they contribute to the construction of meanings in linguistic communication.

0101	Michael Israel MW 3:30pm - 4:45pm	Seats (Total: 25) TWS 0236

ENGL388C **Writing, Research, and Media Internships; Writing for Change**

(Perm req)

Credits: 3 | Grading Method: Regular, Pass-Fail | General Education: DSSP, DVUP

Field work in English studies.

Prerequisite: Permission of ARHU-English department. Recommended: ENGL101. Restriction: Requires application and references."

0101	Justin Lohr	Seats (Total: 18)	
	TuTh 2:00pm - 3:15pm Tu 12:30pm - 1:45pm	JMZ 0208 Location: TBA	Lab

ENGL388D **Writing, Research, and Media Internships; Dickinson Electronic Archives**

(Perm req)

Credits: 1-6 | Grading Method: Regular, Pass-Fail

Field work in English studies.

Prerequisite: permission of the department. Contact Professor Martha Nell Smith, mnsmith@umd.edu

0101	Martha Nell Smith	Seats (Total: 5)
	Contact instructor or department for details.	

ENGL388M **Writing, Research, and Media Internships; Maryland General Assembly Writing Internship**

(Perm req)

Credits: 6 | Grading Method: Regular, Pass-Fail | General Education: DSSP

Field work in English studies.

Prerequisite: permission of department and completion of either ENGL381 or HONR368A. Cross-listed with HONR379W. Credit granted for ENGL388M or HONR379W.

0101	Thomas Lowderbaugh	Seats (Total: 15)
	Contact instructor or department for details. *Students can only register for six credits.*	

ENGL388P **Writing, Research, and Media Internships; Pre-professional Internship**

(Perm req)

Credits: 1-6 | Grading Method: Regular, Pass-Fail | General Education: DSSP

Field work in English studies.

Prerequisite: permission of the department. Contact english@umd.edu.

0101	Karen Lewis Contact instructor or department for details.	Seats (Total: 15)

ENGL388T **Writing, Research, and Media Internships; Digital Humanities Research Assistantship**

(Perm req)

Credits: 1-3 Grading Method: Regular, Pass-Fail

Field work in English studies.

Cross-listed with ENGL388T. Credit only granted for MITH388 or ENGL388T. Prerequisite: permission of department. Repeatable to 9 credits.

0101	Purdom Lindblad Contact instructor or department for details.	Seats (Total: 10)

ENGL388V **Writing, Research, and Media Internships; Undergraduate Teaching Assistants in English**

(Perm req)

Credits: 1-6 Grading Method: Regular, Pass-Fail General Education: DSSP

Field work in English studies.

Prerequisite: permission of department. Repeatable to 12 credits. Contact Lyra Hilliard, lyrahill@umd.edu. Students taking ENGL388V for the first time should register for either section 0101 or 0401 for 4 credits. When taking the course again in subsequent semesters, students should register for 2001 or 3001 for 3 credits."

0101	Lyra Hilliard W 3:30pm - 5:00pm	Seats (Total: 20) TWS 0201
0401	Katherine Joshi Tu 3:30pm - 5:00pm	Seats (Total: 20) TWS 1320
2001	Lyra Hilliard Contact instructor or department for details.	Seats (Total: 10)
3001	Katherine Joshi Contact instructor or department for details.	Seats (Total: 10)

ENGL388W **Writing, Research, and Media Internships; Writing Center Internship**

(Perm req)

Credits: 1-6 Grading Method: Regular, Pass-Fail General Education: DSSP

Field work in English studies.

Prerequisite: permission of department. Repeatable to 12 credits. To apply, go to http://www.english.umd.edu/academics/writingcenter/ internship. Students taking ENGL388W for the first time should register for section 0101 for 4 credits. When taking the course a gain in subsequent semesters, students should register for 2001.

0101	Thomas Earles M 3:30pm - 6:00pm *Students should register for four credits.*	Seats (Total: 20) TWS 3252
2001	Thomas Earles Contact instructor or department for details.	Seats (Total: 4)

ENGL390 **Science Writing**

Credits: 3 | Grading Method: Regular, Pass-Fail | General Education: FSPW

Prerequisite: Must have fulfilled the Academic Writing (FSAW) requirement. Restriction: Must have earned a minimum of 60 credits; and junior standing or higher. Credit only granted for: ENGL390 or ENGL393S. Formerly: ENGL393S.

Specifically designed for students interested in further study in the physical and biological sciences. Exposes students to the conventions of scientific prose in the genres of research articles and proposals. Students also learn to accommodate scientific information to general audiences.

Click here for more course information.

0201	Marybeth Shea MWF 10:00am - 10:50am	Seats (Total: 19) TWS 0224
0301	Katherine Oneill MWF 11:00am - 11:50am	Seats (Total: 19) TWS 1105
0401	Katherine Oneill MWF 12:00pm - 12:50pm	Seats (Total: 19) TWS 1105
0501	Katherine Oneill MWF 1:00pm - 1:50pm	Seats (Total: 19) TWS 0207
1001	Robin Allen-Klein TuTh 8:00am - 9:15am	Seats (Total: 19) TWS 0221

1101	Robin Allen-Klein TuTh 9:30am - 10:45am	Seats (Total: 19) KNI 1105
1701	Richard Reynnells Tu 6:30pm - 9:10pm	Seats (Total: 19) TWS 0207
1801	Richard Reynnells W 6:30pm - 9:10pm	Seats (Total: 19) TWS 0236
9001	Robert Lucci Class time/details on ELMs	Seats (Total: 19) ONLINE
9002	Robert Lucci Class time/details on ELMs	Seats (Total: 19) ONLINE

ENGL390H **Science Writing**

Credits: 3 | Grading Method: Regular, Pass-Fail | General Education: FSPW

Prerequisite: Must have fulfilled the Academic Writing (FSAW) requirement. Restriction: Must have earned a minimum of 60 credits; and junior standing or higher. Credit only granted for: ENGL390 or ENGL393S. Formerly: ENGL393S.

Specifically designed for students interested in further study in the physical and biological sciences. Exposes students to the conventions of scientific prose in the genres of research articles and proposals. Students also learn to accommodate scientific information to general audiences.

Restricted to students in the University or departmental Honors program.

0101	Marybeth Shea MWF 9:00am - 9:50am	Seats (Total: 19) TWS 0224
0301	Marybeth Shea MWF 11:00am - 11:50am	Seats (Total: 19) TWS 0224

ENGL391 **Advanced Composition**

Credits: 3 | Grading Method: Regular, Pass-Fail | General Education: FSPW

Prerequisite: Must have fulfilled the Academic Writing (FSAW) requirement. Restriction: Must have earned a minimum of 60 credits.

An advanced composition course which emphasizes constructing written arguments accommodated to real audiences.

Click here for more information on professional writing courses.

0001	Mark Forrester MWF 8:00am - 8:50am	Seats (Total: 19) TWS 0205
0101	Sabrina Islam MWF 9:00am - 9:50am	Seats (Total: 19) ASY 3219
0301	Anna Szczepaniec-Bialas MWF 11:00am - 11:50am	Seats (Total: 19) TWS 0232
0401	Joshua Weiss MWF 12:00pm - 12:50pm	Seats (Total: 19) EDU 3233
0402	Anna Szczepaniec-Bialas MWF 12:00pm - 12:50pm	Seats (Total: 19) TWS 0232
0601	Joshua Buursma MW 2:00pm - 3:15pm	Seats (Total: 19) TWS 1105
0701	Joshua Weiss MW 3:30pm - 4:45pm	Seats (Total: 19) TWS 0207
1101	Peter Grybauskas TuTh 9:30am - 10:45am	Seats (Total: 19) TWS 0207
1202	Peter Grybauskas TuTh 11:00am - 12:15pm	Seats (Total: 19) TWS 0234
1401	Peter Grybauskas TuTh 2:00pm - 3:15pm	Seats (Total: 19) TWS 0234
1701	Mark Fitzgerald Tu 6:30pm - 9:10pm	Seats (Total: 19) TWS 0230
1901	Mark Fitzgerald Th 6:30pm - 9:10pm	Seats (Total: 19) TWS 0230

9001	Kate Wilson Class time/details on ELMs	Seats (Total: 19) ONLINE
9002	Kate Wilson Class time/details on ELMs	Seats (Total: 19) ONLINE
9003	Kate Wilson Class time/details on ELMs	Seats (Total: 19) ONLINE
9004	Kate Wilson Class time/details on ELMs	Seats (Total: 19) ONLINE
9005	Ann Mason Class time/details on ELMs	Seats (Total: 19) ONLINE
9006	Ann Mason Class time/details on ELMs	Seats (Total: 19) ONLINE

ENGL391H **Advanced Composition**

Credits: 3 | Grading Method: Regular, Pass-Fail | General Education: FSPW

Prerequisite: Must have fulfilled the Academic Writing (FSAW) requirement. Restriction: Must have earned a minimum of 60 credits.

An advanced composition course which emphasizes constructing written arguments accommodated to real audiences.

Restricted to students in the University or departmental Honors program.

Click here for more information on professional writing courses.

0201	Mark Forrester MWF 10:00am - 10:50am	Seats (Total: 19) TWS 0234

ENGL392 **Legal Writing**

Credits: 3 | Grading Method: Regular, Pass-Fail | General Education: FSPW

Prerequisite: Must have fulfilled the Academic Writing (FSAW) requirement. Restriction: Must have earned a minimum of 60 credits.

Conventions of legal writing and research. Students learn how to read and write about cases, statutes, or other legislation; how to apply legal principles to fact scenarios; and how to present a written analysis for readers in the legal profession. Assignments may include the law-school application essay, case briefs, legal memos, and client letters.

Click here for more information on professional writing courses.

0301	Brandee Pettus MWF 11:00am - 11:50am	Seats (Total: 19) TWS 1313
1101	Kelly Hebron TuTh 9:30am - 10:45am	Seats (Total: 19) JMZ 3120
1201	John Kim TuTh 11:00am - 12:15pm	Seats (Total: 19) ASY 3217
1301	John Kim TuTh 12:30pm - 1:45pm	Seats (Total: 19) TWS 0234
1601	Michael Winett M 6:30pm - 9:10pm	Seats (Total: 19) TWS 0232
1701	Michael Winett Tu 6:30pm - 9:10pm	Seats (Total: 19) TWS 0232
1801	Michael Winett W 6:30pm - 9:10pm	Seats (Total: 19) TWS 0232

ENGL393 **Technical Writing**

Credits: 3 | Grading Method: Regular, Pass-Fail | General Education: FSPW

Prerequisite: Must have fulfilled the Academic Writing (FSAW) requirement. Restriction: Must have earned a minimum of 60 credits.

Focuses on the writing of technical papers and reports.

Click here for more information on professional writing courses.

0001	Patrick Nelson MWF 8:00am - 8:50am	Seats (Total: 19) TWS 0207

0101	Alysia Sawchyn MWF 9:00am - 9:50am	Seats (Total: 19) TWS 0207
0201	Alysia Sawchyn MWF 10:00am - 10:50am	Seats (Total: 19) TWS 0207
0202	Nia Crawford MWF 10:00am - 10:50am	Seats (Total: 19) TWS 1105
0301	Nia Crawford MWF 11:00am - 11:50am	Seats (Total: 19) LEF 1171
0302	Joan Mooney MWF 11:00am - 11:50am	Seats (Total: 19) TWS 0234
0401	Joan Mooney MWF 12:00pm - 12:50pm	Seats (Total: 19) TWS 0234
0402	Alexandra Calloway MWF 12:00pm - 12:50pm	Seats (Total: 19) TWS 0207
0501	Alexandra Calloway MWF 1:00pm - 1:50pm	Seats (Total: 19) TWS 0234
0502	Nia Crawford MWF 1:00pm - 1:50pm	Seats (Total: 19) TWS 1105
0701	Joshua Buursma MW 3:30pm - 4:45pm	Seats (Total: 19) TWS 0234
0801	David Miles MW 5:00pm - 6:15pm	Seats (Total: 19) TWS 0207
0802	Daune O'Brien MW 5:00pm - 6:15pm	Seats (Total: 19) TWS 1313
1001	Elizabeth McClure TuTh 8:00am - 9:15am	Seats (Total: 19) TWS 0207
1101	Elizabeth McClure TuTh 9:30am - 10:45am	Seats (Total: 19) TWS 0221

1102	Danuta Hinc TuTh 9:30am - 10:45am	Seats (Total: 19) TWS 0223
1201	Elizabeth McClure TuTh 11:00am - 12:15pm	Seats (Total: 19) TWS 0207
1202	Kisa Lape TuTh 11:00am - 12:15pm	Seats (Total: 19) TWS 0223
1401	Peter Witte TuTh 2:00pm - 3:15pm	Seats (Total: 19) TWS 0207
1501	Danuta Hinc TuTh 3:30pm - 4:45pm	Seats (Total: 19) TWS 0223
1505	Tricia Raysor TuTh 5:00pm - 6:15pm	Seats (Total: 19) TWS 0207
1601	Kelly Cresap M 6:30pm - 9:10pm	Seats (Total: 19) TWS 1106
1602	Elizabeth Benton M 6:30pm - 9:10pm	Seats (Total: 19) TWS 0234
1701	Eric Bond Tu 6:30pm - 9:10pm	Seats (Total: 19) TWS 0214
1801	Kelly Cresap W 6:30pm - 9:10pm	Seats (Total: 19) TWS 1105
1802	Daniel Kason W 6:30pm - 9:10pm	Seats (Total: 19) TWS 0205
1901	Aysha Jawed Th 6:30pm - 9:10pm	Seats (Total: 19) TWS 0223
1902	Patrick Nelson Th 6:30pm - 9:10pm	Seats (Total: 19) TWS 0201
9001	Phillip Moses Class time/details on ELMs	Seats (Total: 19) ONLINE

9002	Ann Mason Class time/details on ELMs	Seats (Total: 19) ONLINE
9003	Daniel Saalfeld Class time/details on ELMs	Seats (Total: 19) ONLINE
9004	Daniel Saalfeld Class time/details on ELMs	Seats (Total: 19) ONLINE
9005	Daniel Saalfeld Class time/details on ELMs	Seats (Total: 19) ONLINE
9007	Daniel Saalfeld Class time/details on ELMs	Seats (Total: 19) ONLINE
9008	Sheila Lalwani Class time/details on ELMs	Seats (Total: 19) ONLINE
9009	Sheila Lalwani Class time/details on ELMs	Seats (Total: 19) ONLINE
9010	Sheila Lalwani Class time/details on ELMs	Seats (Total: 19) ONLINE
9011	Sheila Lalwani Class time/details on ELMs	Seats (Total: 19) ONLINE
9012	David Miles Class time/details on ELMs	Seats (Total: 19) ONLINE
9013	Dennis Winston Class time/details on ELMs	Seats (Total: 19) ONLINE
9014	Sarah Dammeyer Class time/details on ELMs	Seats (Total: 19) ONLINE
9015	Sarah Dammeyer Class time/details on ELMs	Seats (Total: 19) ONLINE
9016	Dennis Winston Class time/details on ELMs	Seats (Total: 19) ONLINE

9017	Dennis Winston Class time/details on ELMs	Seats (Total: 19) ONLINE
9018	Michelle Von Euw Class time/details on ELMs	Seats (Total: 19) ONLINE
9019	Michelle Von Euw Class time/details on ELMs	Seats (Total: 19) ONLINE
9020	Michelle Von Euw Class time/details on ELMs	Seats (Total: 19) ONLINE

ENGL393H **Technical Writing**

Credits: 3 | Grading Method: Regular, Pass-Fail | General Education: FSPW

Prerequisite: Must have fulfilled the Academic Writing (FSAW) requirement. Restriction: Must have earned a minimum of 60 credits.

Focuses on the writing of technical papers and reports.

Restricted to students in the University or departmental Honors proram.

Click here for more information on professional writing courses.

6102	Christopher Crane MW 1:00pm - 1:50pm Class time/details on ELMs	Seats (Total: 19) KNI 1103 ONLINE

ENGL393Q **Technical Writing**

Credits: 3 | Grading Method: Regular, Pass-Fail | General Education: FSPW

Prerequisite: Must have fulfilled the Academic Writing (FSAW) requirement. Restriction: Must have earned a minimum of 60 credits.

Focuses on the writing of technical papers and reports.

3001	Alexandra Calloway F 9:00am - 11:40am *The writing of technical papers and reports with additional service learning hours required to be completed as part of the course.*	Seats (Total: 19) TWS 3252

ENGL393X **Technical Writing**

(Perm req)

Credits: 3 | Grading Method: Regular, Pass-Fail | General Education: FSPW

Prerequisite: Must have fulfilled the Academic Writing (FSAW) requirement. Restriction: Must have earned a minimum of 60 credits.

Focuses on the writing of technical papers and reports.

Click here for more information on professional writing courses.

1401	Danuta Hinc TuTh 2:00pm - 3:15pm	Seats (Total: 15) TWS 0223
	Restricted to students for whom English is a second language. For permission contact Grace Crussiah gjc@umd.edu.	

ENGL394 **Business Writing**

Credits: 3 | Grading Method: Regular, Pass-Fail | General Education: FSPW

Prerequisite: Must have fulfilled the Academic Writing (FSAW) requirement. Restriction: Must have earned a minimum of 60 credits.

Intensive practice in the forms of written communication common in the business world: letters, memos, short reports, and proposals. Focus on the principles of rhetoric and effective style.

Click here for more information on professional writing courses.

0101	Elliot Berger MWF 9:00am - 9:50am	Seats (Total: 19) TWS 1105
0202	Tom Hatcher MWF 10:00am - 10:50am	Seats (Total: 19) ASY 3217
0302	Robert Lucci MWF 11:00am - 11:50am	Seats (Total: 19) SQH 1111
0401	Robert Oliver MWF 12:00pm - 12:50pm	Seats (Total: 19) JMZ 2207
0402	Elliot Berger MWF 12:00pm - 12:50pm	Seats (Total: 19) TWS 1313

0501	Robert Oliver MWF 1:00pm - 1:50pm	Seats (Total: 19) TWS 1313
0502	Elliot Berger MWF 1:00pm - 1:50pm	Seats (Total: 19) TWS 1321
0601	Anna Szczepaniec-Bialas MW 2:00pm - 3:15pm	Seats (Total: 19) TWS 0232
0702	Ceil Goldberg MW 3:30pm - 4:45pm	Seats (Total: 19) TWS 0230
0801	Erica Cochran MW 5:00pm - 6:15pm	Seats (Total: 19) KEY 0125
0802	Robert Oliver MW 5:00pm - 6:15pm	Seats (Total: 19) TWS 1106
1103	Holly Smith TuTh 9:30am - 10:45am	Seats (Total: 19) EDU 3236
1201	Holly Smith TuTh 11:00am - 12:15pm	Seats (Total: 19) TWS 0224
1202	Radford Skudrna TuTh 11:00am - 12:15pm	Seats (Total: 19) TWS 1320
1302	Adam Lloyd TuTh 12:30pm - 1:45pm	Seats (Total: 19) TWS 0230
1401	Thomas Lowderbaugh TuTh 2:00pm - 3:15pm	Seats (Total: 19) TWS 0232
1402	Adam Lloyd TuTh 2:00pm - 3:15pm	Seats (Total: 19) TWS 0230
1502	Joseph Angelella TuTh 3:30pm - 4:45pm	Seats (Total: 19) TWS 0234
1506	Joseph Angelella TuTh 5:00pm - 6:15pm	Seats (Total: 19) TWS 0234

1601	Daune O'Brien M 6:30pm - 9:10pm	Seats (Total: 19) TWS 0236
1801	Jonathan Rick W 6:30pm - 9:10pm	Seats (Total: 19) TWS 0234
1802	Daune O'Brien W 6:30pm - 9:10pm	Seats (Total: 19) TWS 0207
3001	Ellen Blumner F 9:00am - 11:40am	Seats (Total: 19) TWS 3132
9001	Pamela Orel Class time/details on ELMs	Seats (Total: 19) ONLINE
9002	Pamela Orel Class time/details on ELMs	Seats (Total: 19) ONLINE
9003	Pamela Orel Class time/details on ELMs	Seats (Total: 19) ONLINE
9004	David Miles Class time/details on ELMs	Seats (Total: 19) ONLINE
9005	David Miles Class time/details on ELMs	Seats (Total: 19) ONLINE
9006	Clare Parsons Class time/details on ELMs	Seats (Total: 19) ONLINE
9007	Clare Parsons Class time/details on ELMs	Seats (Total: 19) ONLINE
9008	Clare Parsons Class time/details on ELMs	Seats (Total: 19) ONLINE
9009	Karen Angeline Class time/details on ELMs	Seats (Total: 19) ONLINE
9010	Karen Angeline Class time/details on ELMs	Seats (Total: 19) ONLINE

9011	Karen Angeline Class time/details on ELMs	Seats (Total: 19) ONLINE
9012	Karen Angeline Class time/details on ELMs	Seats (Total: 19) ONLINE
9013	Daune O'Brien Class time/details on ELMs	Seats (Total: 19) ONLINE
ESG2	Katherine Robinson TuTh 9:30am - 10:45am *Restricted to COMM students at Shady Grove.*	Seats (Total: 19) BLD3 2203

ENGL395 **Writing for Health Professions**

Credits: 3 | Grading Method: Regular, Pass-Fail | General Education: FSPW

Prerequisite: Must have fulfilled the Academic Writing (FSAW) requirement. Restriction: Must have earned a minimum of 60 credits.

Focus on accommodating health-related technical material and empirical studies to lay audiences, and helping writers to achieve stylistic flexibility and correctness.

Click here for more information on professional writing courses.

0101	James Goodwin MWF 9:00am - 9:50am	Seats (Total: 19) JMZ 0103
0201	James Goodwin MWF 10:00am - 10:50am	Seats (Total: 19) JMZ 1122
0202	Michelle Moncrieffe MWF 10:00am - 10:50am	Seats (Total: 19) TWS 1313
0301	Michelle Moncrieffe MWF 11:00am - 11:50am	Seats (Total: 19) KNI 1105
0401	James Goodwin MWF 12:00pm - 12:50pm	Seats (Total: 19) JMZ 1215
0501	James Goodwin MWF 1:00pm - 1:50pm	Seats (Total: 19) JMZ 0208

0701	Michael Schmidt MW 3:30pm - 4:45pm	Seats (Total: 19) TWS 1106
0801	Michael Schmidt MW 5:00pm - 6:15pm	Seats (Total: 19) TWS 0236
1002	Joseph Angelella TuTh 8:00am - 9:15am	Seats (Total: 19) TWS 0201
1101	Justin Lohr TuTh 9:30am - 10:45am	Seats (Total: 19) ASY 3217
1301	Kisa Lape TuTh 12:30pm - 1:45pm	Seats (Total: 19) TWS 0223
1501	Kisa Lape TuTh 3:30pm - 4:45pm	Seats (Total: 19) TWS 0230
1505	Kisa Lape TuTh 5:00pm - 6:15pm	Seats (Total: 19) TWS 0230
1701	Nicole Cuffy Tu 6:30pm - 9:10pm	Seats (Total: 19) TWS 1105
1702	Zachary Frank Tu 6:30pm - 9:10pm	Seats (Total: 19) KNI 1103
1901	Zachary Frank Th 6:30pm - 9:10pm	Seats (Total: 19) KNI 1103
ESG1	Joseph Wappel TuTh 2:00pm - 3:15pm *Restricted to Shady Grove students in the Public Health Sciences major.*	Seats (Total: 19) BLD3 2203
SG97	Joseph Wappel TuTh 12:30pm - 1:45pm *Restricted to Biological Sciences majors at Shady Grove. All other students email usgbiosci@umd.edu for permission.*	Seats (Total: 19) BLD3 4220

SG98	Joseph Wappel TuTh 11:00am - 12:15pm	Seats (Total: 19) BLD3 4220
	Restricted to Biological Sciences majors at Shady Grove. All other students email usgbiosci@umd.edu for permission.	

ENGL398A **Topics in Professional Writing; Writing for the Arts**

Credits: 3 | Grading Method: Regular, Pass-Fail | General Education: FSPW

Professional writing courses that focus on the audiences, conventions, and genres of particular disciplines, professions, or organizations. Examples include writing for the arts, writing case studies and investigative reports, writing about economics, and writing for non-profit organizations.

Prerequisite: 60 credits and completion of ENGL101 or equivalent. This course satisfies the professional writing requirement.

1001	Caroline Wilkins TuTh 8:00am - 9:15am	Seats (Total: 19) TWS 1107
1101	Peter Witte TuTh 9:30am - 10:45am	Seats (Total: 19) TWS 0234
1201	Peter Witte TuTh 11:00am - 12:15pm	Seats (Total: 19) ASY 3221
1601	Kevin Tervala M 6:30pm - 9:10pm	Seats (Total: 19) TWS 0201
1801	Dennis Winston W 6:30pm - 9:10pm	Seats (Total: 19) TWS 0201

ENGL398B **Topics in Professional Writing; Writing for Social Entrepreneurship**

Credits: 3 | Grading Method: Regular, Pass-Fail | General Education: FSPW

Professional writing courses that focus on the audiences, conventions, and genres of particular disciplines, professions, or organizations. Examples include writing for the arts, writing case studies and investigative reports, writing about economics, and writing for non-profit organizations.

Prerequisite: 60 credits and completion of ENGL101 or equivalent. This c ourse satisfies the professional writing requirement.

0601	Eric Thiel MW 2:00pm - 3:15pm	Seats (Total: 19) TWS 0234
0701	Eric Thiel MW 3:30pm - 4:45pm	Seats (Total: 19) TWS 0221
0801	Eric Thiel MW 5:00pm - 6:15pm	Seats (Total: 19) TWS 0221
1702	Mrim Boutla Tu 6:30pm - 9:10pm	Seats (Total: 19) TWS 0221
1901	Roxanne Clements Th 6:30pm - 9:10pm	Seats (Total: 19) TWS 1106
SG91	Katherine Robinson TuTh 12:30pm - 1:45pm *Restricted to Senior BMGT-Shady Grove students. Other students may request enrollment on a space available basis. UMCP undergraduate BMGT students are not eligible to enroll at Shady Grove.*	Seats (Total: 19) BLD2 3052
SG92	Katherine Robinson TuTh 2:00pm - 3:15pm *Restricted to Senior BMGT-Shady Grove students. Other students may request enrollment on a space available basis. UMCP undergraduate BMGT students are not eligible to enroll at Shady Grove.*	Seats (Total: 19) BLD2 3052

ENGL398C **Topics in Professional Writing; Writing Case Studies and Investigative Reports**

Credits: 3 | Grading Method: Regular, Pass-Fail | General Education: FSPW

Professional writing courses that focus on the audiences, conventions, and genres of particular disciplines, professions, or organizations. Examples include writing for the arts, writing case studies and investigative reports, writing about economics, and writing for non-profit organizations.

Prerequisite: 60 credits and completion of ENGL101 or equivalent. This course satisfies the professional writing requirement.

0801	Joshua Buursma MW 5:00pm - 6:15pm	Seats (Total: 19) TWS 0234

0901	Joshua Buursma MW 6:30pm - 7:45pm	Seats (Total: 19) TWS 0214
1002	Joshua Buursma TuTh 8:00am - 9:15am	Seats (Total: 19) TWS 1105
1201	Tom Hatcher TuTh 11:00am - 12:15pm	Seats (Total: 19) KEY 0102
SG91	Joseph Wappel TuTh 9:30am - 10:45am *Registration is restricted to CCJS-Shady Grove students.*	Seats (Total: 19) BLD2 3012

ENGL398E **Topics in Professional Writing; Writing about Economics**

Credits: 3 | Grading Method: Regular, Pass-Fail | General Education: FSPW

Professional writing courses that focus on the audiences, conventions, and genres of particular disciplines, professions, or organizations. Examples include writing for the arts, writing case studies and investigative reports, writing about economics, and writing for non-profit organizations.

Prerequisite: 60 credits and completion of ENGL101 or equivalent. This course satisfies the professional writing requirement.

0801	Michael Winett MW 5:00pm - 6:15pm	Seats (Total: 19) TWS 0232

ENGL398L **Topics in Professional Writing; Scholarly Writing in the Humanities**

Credits: 3 | Grading Method: Regular, Pass-Fail | General Education: FSPW

Professional writing courses that focus on the audiences, conventions, and genres of particular disciplines, professions, or organizations. Examples include writing for the arts, writing case studies and investigative reports, writing about economics, and writing for non-profit organizations.

Prerequisite:60 credits and completion of ENGL101. This course satisfies the professional writing requirement.An advanced composition class focusing on the norms and procedures of advanced academic writing.

0301	Mark Forrester MWF 11:00am - 11:50am	Seats (Total: 19) TWS 0207

ENGL398N **Topics in Professional Writing; Writing for Non-Profit Organizations**

Credits: 3 | Grading Method: Regular, Pass-Fail | General Education: FSPW

Professional writing courses that focus on the audiences, conventions, and genres of particular disciplines, professions, or organizations. Examples include writing for the arts, writing case studies and investigative reports, writing about economics, and writing for non-profit organizations.

Prerequisite: 60 credits and completion of ENGL101 or equivalent. This course satisfies the professional writing requirement.

0301	Cheryl Spinner MWF 11:00am - 11:50am	Seats (Total: 19) VMH 1107
0501	Cheryl Spinner MWF 1:00pm - 1:50pm	Seats (Total: 19) ASY 3221
0601	Michael Schmidt MW 2:00pm - 3:15pm	Seats (Total: 19) TWS 0214
1001	David Todd TuTh 8:00am - 9:15am	Seats (Total: 19) TWS 0230
1002	Cheryl Spinner TuTh 8:00am - 9:15am	Seats (Total: 19) TWS 3252
1101	David Todd TuTh 9:30am - 10:45am	Seats (Total: 19) TWS 0230
1201	David Todd TuTh 11:00am - 12:15pm	Seats (Total: 19) TWS 0230
1301	Rebecca Holden TuTh 12:30pm - 1:45pm	Seats (Total: 19) TWS 0224
1401	Rebecca Holden TuTh 2:00pm - 3:15pm	Seats (Total: 19) TWS 0224

ENGL398R **Topics in Professional Writing; Writing Non-Fictional Narratives**

Credits: 3 | Grading Method: Regular, Pass-Fail | General Education: FSPW

Professional writing courses that focus on the audiences, conventions, and genres of particular disciplines, professions, or organizations. Examples include writing for the arts, writing case studies and investigative reports, writing about economics, and writing for non-profit organizations.

Prerequisite: 60 credits and completion of ENGL101 or equivalent. This course satisfies the professional writing requirement.

1001	Jesse Brooks TuTh 8:00am - 9:15am	Seats (Total: 19) TWS 0234
1101	Pamela Gerhardt TuTh 9:30am - 10:45am	Seats (Total: 19) TWS 0232
1102	Jesse Brooks TuTh 9:30am - 10:45am	Seats (Total: 19) KNI 1103
1201	Pamela Gerhardt TuTh 11:00am - 12:15pm	Seats (Total: 19) TWS 0232
1202	Pamela Gerhardt TuTh 12:30pm - 1:45pm	Seats (Total: 19) TWS 0232
1505	Mark Fitzgerald TuTh 5:00pm - 6:15pm	Seats (Total: 19) TWS 0224

ENGL398V **Topics in Professional Writing; Writing about the Environment**

Credits: 3 | Grading Method: Regular, Pass-Fail | General Education: FSPW

Professional writing courses that focus on the audiences, conventions, and genres of particular disciplines, professions, or organizations. Examples include writing for the arts, writing case studies and investigative reports, writing about economics, and writing for non-profit organizations.

Prerequisite: 60 credits and completion of ENGL101 or equivalent. This course satisfies the professional writing requirement.

1201	Jesse Brooks TuTh 11:00am - 12:15pm	Seats (Total: 19) TWS 1105
1301	Shannon Zellars Strohl TuTh 12:30pm - 1:45pm	Seats (Total: 19) TWS 0207

1401	Shannon Zellars Strohl TuTh 2:00pm - 3:15pm	Seats (Total: 19) ASY 3211
1501	Shannon Zellars Strohl TuTh 3:30pm - 4:45pm	Seats (Total: 19) TWS 1106
1701	Ruth Phillips Tu 6:30pm - 9:10pm	Seats (Total: 19) TWS 0201
1801	Ruth Phillips Th 6:30pm - 9:10pm	Seats (Total: 19) TWS 0207

ENGL402 **Chaucer**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Prerequisite: Two English courses in literature; or permission of ARHU-English department.

Works read in Middle English. Readings may include Canterbury Tales, Troilus and Criseyde, dream visions, lyrics.

0101	Thomas Moser TuTh 11:00am - 12:15pm	Seats (Total: 20) TWS 1106

ENGL403 **Shakespeare: The Early Works**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Prerequisite: Two English courses in literature; or permission of ARHU-English department.

Close study of selected works from the first half of Shakespeare's career. Generic issues of early histories, comedies, tragedies. Language, theme, dramatic technique, sources, and early modern English social-historical context.

0101	Kim Coles MWF 12:00pm - 12:50pm	Seats (Total: 20) TWS 1107

ENGL408B **Literature by Women Before 1800; Saints and Sinners, Virgins and Queens: Medieval Women Reading and Writing**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Selected writings by women in the medieval and early modern era.

Prerequisite: Two English courses in literature; or permission of ARHU- English department. Repeatable up to 9 credits.

0101	Theresa Coletti	Seats (Total: 15)
	TuTh 12:30pm - 1:45pm	TWS 1106

ENGL409C **Study Abroad Special Topics IV; Shakespeare's Italian Plays**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Special topics course taken as part of an approved study abroad program.

Contact department for information to register for this course.

ENGL409K **Study Abroad Special Topics IV; A Moveable Feast: Writing about Food**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Special topics course taken as part of an approved study abroad program.

Contact department for information to register for this course.

ENGL409L **Study Abroad Special Topics IV; Literature of London**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Special topics course taken as part of an approved study abroad program.

Contact department for information to register for this course.

ENGL409N **Study Abroad Special Topics IV; Fashion, Media and Communication**

Credits: 1-6 Grading Method: Regular, Pass-Fail, Audit

Special topics course taken as part of an approved study abroad program.

Contact department for information to register for this course.

ENGL414 **Milton**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Prerequisite: Two English courses in literature; or permission of ARHU-English department.

Poetry and major prose in their social, political, and literary-historical contexts. Special attention to Paradise Lost. Other works may include Samson Agonistes and shorter poems.

0101	Kim Coles	Seats (Total: 20)
	MWF 1:00pm - 1:50pm	TWS 0205

ENGL422 **English Victorian Literature**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Prerequisite: Two English courses in literature; or permission of ARHU-English department.

A survey of English literature of the Victorian period. Writers may include Arnold, Browning, Tennyson, Dickens, George Eliot, Carlyle, Ruskin, Newman, and Wilde.

0101	Jason Rudy	Seats (Total: 15)
	MW 2:00pm - 3:15pm	TWS 0205

ENGL428I **Seminar in Language and Literature; The Rhetoric of Us and Them: The Language of Political Alignment**

(Perm req)

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Topics will vary each semester. The course will provide a seminar experience in material or methodologies not otherwise available to the major.

Restriction: Junior Standing. For ENGL majors only. Repeatable to 9 credits if content differs. Course intended primarily for students in English Honors Program. English majors with strong academic records may also apply. Permission from the Director of Honors required.

0101	Linda Coleman	Seats (Total: 20)
	TuTh 11:00am - 12:15pm	TWS 0205

ENGL429 **Independent Research in English**

(Perm req)

Credits: 1-6 Grading Method: Regular, Pass-Fail

An advanced independent research project for qualified students, supervised by an English faculty member, on a topic not ordinarily covered in available courses.

Prerequisite: ENGL301 and two English courses, excluding Fundamental Studies requirement.

Contact department for information to register for this course.

ENGL433 **American Literature: 1914 to the Present, the Modern Period**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Prerequisite: Two English courses in literature; or permission of ARHU-English department.

Modernism, Postmodernism. Writers such as Stevens, Stein, Ellison.

0101	Peter Mallios	Seats (Total: 22)
	TuTh 12:30pm - 1:45pm	TWS 0201

ENGL435 **American Poetry: Beginning to the Present**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Prerequisite: Two English courses in literature; or permission of ARHU-English department.

Selections of American poetry, from Bradstreet to contemporary free verse. Authors such as Whitman, Dickinson, Bishop, Hughes, Rich, and Frost.

Cross-listed with LGBT459M. Credit granted for ENGL435 or LGBT459M.

Contact department for information to register for this course.

ENGL437 **Contemporary American Literature**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Prerequisite: Two English courses in literature; or permission of ARHU-English department.

Prose, poetry, drama of living American writers. Current cultural and social issues.

Contact department for information to register for this course.

ENGL439F **Spotlight on Major Writers; Faulkner and His Literary Heirs**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

An intensive study of a single writer, or a handful of writers, to understand the shifts in the writer's craft and cultural influence, both past and present.

Prerequisite: Two English courses in literature; or permission of ARHU-English department. Repeatable up to 9 credits.

0101	David Wyatt	Seats (Total: 22)
	TuTh 12:30pm - 1:45pm	TWS 0236

ENGL439J **Spotlight on Major Writers; Race, Early Childhood TV, and the Legacies of Jim Henson**

Credits: 3

Grading Method: Regular, Pass-Fail, Audit

An intensive study of a single writer, or a handful of writers, to understand the shifts in the writer's craft and cultural influence, both past and present.

Prerequisite: Two English courses in literature; or permission of ARHU-English department. Repeatable up to 9 credits.

0101	Chad Infante	Seats (Total: 22)
	TuTh 9:30am - 10:45am	TWS 0214

ENGL440 **The Novel in America to 1914**

Credits: 3

Grading Method: Regular, Pass-Fail, Audit

Prerequisite: Two English courses in literature; or permission of ARHU-English department.

Survey of the American novel to World War I. Cultural and philosophical contexts; technical developments in the genre. Authors such as Melville, Wells Brown, James, Sedgwick, Chopin.

0101	Robert Levine	Seats (Total: 22)
	TuTh 3:30pm - 4:45pm	TWS 0236

ENGL449A **Selected Topics in U.S. Latinx Literature; The Latinx Short Story**

Credits: 3

Grading Method: Regular, Pass-Fail, Audit

Advanced study of selected works by U.S. Latinx writers.

Prerequisite: Two English courses in literature; or permission of ARHU-English department. Repeatable up to 9 credits.

0101	Gabrielle Fuentes	Seats (Total: 22)
	MW 2:00pm - 3:15pm	TWS 0201

ENGL455 **The Eighteenth-Century English Novel**

Credits: 3

Grading Method: Regular, Pass-Fail, Audit

Prerequisite: Two English courses in literature; or permission of ARHU-English department.

The origins and development of the British novel, from the late seventeenth century until the beginning of the nineteenth. Questions about what novels were, who wrote them, and who read them. Authors such as Behn, Defoe, Richardson, Fielding, Sterne, Smollett, Burney, Radcliffe, and Austen.

0101	Laura Rosenthal	Seats (Total: 22)
	MW 5:00pm - 6:15pm	TWS 0205

ENGL456 **The Nineteenth-Century English Novel**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Prerequisite: Two English courses in literature; or permission of ARHU-English department.

Surveys major novels of the period. Attention to narrative form and realism; representations of gender and class; social contexts for reading, writing and publishing. Authors such as Austen, Bronte, Dickens, George Eliot, Trollope.

Contact department for information to register for this course.

ENGL460 **Archival Research Methods in English Studies**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Prerequisite: Two English courses beyond the Fundamental Studies courses; or permission of ARHU-English Department.

Introduces approaches for doing archival research in English studies, exploring how researchers develop their scope and practices of study and how they access and use archival materials electronically and on site to further their research questions. Investigates a historical period, genre, or theme through the lens of manuscripts, ephemera, and other artifacts. Case studies vary by semester.

Restriction: Two English courses beyond the Fundamental Studies courses; or permission of ARHU-English Department

0101	Karen Nelson	Seats (Total: 22)
	TuTh 5:00pm - 6:15pm	TWS 0221

ENGL467 **Critical and Creative Approaches to Digital Textuality**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Prerequisite: One English course in literature; or permission of ARHU-English department.

Examines electronic literature and other aspects of the literary world online with a focus on experimental writing with computers. Topics may include digital fiction and storytelling, analysis of literary texts using digital tools, bots, book hacking, flash fiction, narrative in games, and the history of computer-generated writing. No programming experience required.

0101	Kari Kraus	Seats (Total: 15)
	TuTh 3:30pm - 4:45pm	TWS 0205

ENGL468C **Selected Topics in Film Studies; Animation and Cinema**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Advanced studies in various periods and genres of film.

Prerequisite: ENGL245, FILM245, FILM283, or SLLC283; or permission of ARHU-English department. Recommended: ENGL329, CMLT280, and ENGL245. Repeatable up to 9 credits. Cross-listed with FILM412. Credit only granted for ENGL468C or FILM412.

0101	Oliver Gaycken	Seats (Total: 25)
	MW 2:00pm - 3:15pm	TWS 0236

ENGL469D **The Craft of Literature: Creative Form and Theory; Shapeshifting and Genre Theft: New Literary Forms**

(Perm req)

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Examines various forms of poetry and/or fiction, emphasizing the practice of making literary art and the aesthetic and theoretical approaches that define it. Students will practice the elements of literary craft, producing and experimenting with a wide range of forms and conventions in poetry and/or fiction. They will also produce critical work that articulates and contextualizes theoretical approaches to the making of literary art.

Prerequisite: Two English courses in literature or creative writing; and have completed a 200-level creative writing workshop in ENGL or permission of ARHU-English Department. Repeatable to 9 credits if content differs.

0101	Emily Flamm	Seats (Total: 20)
	TuTh 2:00pm - 3:15pm	TWS 0205

ENGL470 **African-American Literature: From Slavery to Freedom**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Prerequisite: Two English courses in literature; or permission of ARHU-English department.

Examines African-American literature from its beginnings to the early twentieth century, including genres ranging from slave narratives, pamphlets, essays, and oratory, to poetry and fiction. Our emphasis is on the interaction between literature and literary forms, on the one hand, and historical and political developments in the push toward emancipation, on the other.

Cross-listed with AASP478B. Credit granted for either ENGL470 or AASP47 8B

0101	Edlie Wong	Seats (Total: 22)
	TuTh 11:00am - 12:15pm	TWS 0214

ENGL478K **Selected Topics in English and American Literature before 1800; Early Modern to Post-Modern Poetry**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Prerequisite: Two English courses in literature or permission of ARHU-English Department. Repeatable to 9 credits if content differs.

0101	David Wyatt	Seats (Total: 20)
	TuTh 2:00pm - 3:15pm	TWS 0221

ENGL479G **Selected Topics in English and American Literature after 1800; Horror Fiction and Media Necromancy**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Prerequisite: Two English courses in literature or permission of ARHU-English department. Repeatable to 9 credits if content differs.

0101	Andrew Ferguson	Seats (Total: 22)
	MWF 12:00pm - 12:50pm	TWS 0221

ENGL479O **Selected Topics in English and American Literature after 1800; Postcolonialism**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Cross-listed with ANTH469L, AMST498F, HIST419L, LASC448K, and PHIL428A. Credit only granted for HIST419L, ANTH469L, AMST498F, ENGL479O, LASC448K, or PHIL428A.

0101	James Maffie	Seats (Total: 40)
	TuTh 3:30pm - 4:45pm	KEY 0116

ENGL487 **Principles and Practices of Rhetoric**

Credits: 3

Grading Method: Regular, Pass-Fail, Audit

A seminar examining foundational concepts and approaches in the theory and practice of rhetoric in civic, professional, academic, and interpersonal settings; focusing on key issues in persuasion, argumentation, and eloquence in historical and contemporary contexts.

0101	Vessela Valiavitcharska	Seats (Total: 20)
	TuTh 3:30pm - 4:45pm	TWS 1107

ENGL489T **Special Topics in Language and Rhetoric; Analyzing Conversation**

Credits: 3

Grading Method: Regular, Pass-Fail, Audit

Special topics in language and rhetoric, such as discourse analysis, semantics, or cognitive linguistics; comparative rhetoric and rhetorical theory, digital rhetorics, women's and minority rhetorics, or the history of rhetoric.

0101	Linda Coleman	Seats (Total: 20)
	TuTh 9:30am - 10:45am	TWS 0205

ENGL491 **Digital Rhetoric**

Credits: 3

Grading Method: Regular, Pass-Fail

Prerequisite: Students must have satisfied the Fundamental Studies Academic Writing requirement. Credit only granted for: ENGL489J, or ENGL491. Formerly: ENGL489J.

Examines the social significance of the ways digital texts are composed and circulated. Explores why it matters how the web is written and who does the writing, understanding the Internet as rhetorical from its content and communities to the code, protocols, and policies that control digital distribution. Includes active experimentation with digital tools so students can expand their theoretical understanding through critical making.

0101	Melanie Kill	Seats (Total: 20)
	TuTh 9:30am - 10:45am	TWS 3136

ENGL495 **Independent Study in Honors**

(Perm req)

Credits: 1-3

Grading Method: Regular, Pass-Fail, Audit

Prerequisite: ENGL373 and ENGL370. Restriction: Must be in English Language and Literature program; and candidacy for honors in English.

Completion and presentation of the senior honors project.

Contact department for information to register for this course.

ENGL497 **English at Work**

Credits: 3 Grading Method: Regular, Pass-Fail

Prerequisite: ENGL301; and an ENGL course at the 300-level or higher. Restriction: Must have earned a minimum of 60 credits.

Examines how English majors put their academic knowledge and skills to work in professional workplaces after graduation. Students learn strategies to research careers, and they shadow a person in a career of interest for a day. Students learn to compose different professional genres to write and speak about and for professional development and advancement, including inquiry letters, technical descriptions, professional portfolios, and elevator pitches. Students will critically examine the learning they have done in their undergraduate coursework and compose a vision for bringing that learning to life in their future work.

Restriction: Must be in English Language and Literature program; or must be in Secondary Educ: English Language Arts program.

0101	Melanie Kill TuTh 12:30pm - 1:45pm	Seats (Total: 20) TWS 3252

ENGL498 **Advanced Fiction Workshop; Advanced Fiction Workshop**

(Perm req)

Credits: 3 Grading Method: Regular, Pass-Fail

An advanced class in the making of fiction. Intensive discussion of students' own fiction. Readings include both fiction and essays about fiction by practicing writers. Writing short critical papers, responding to works of fiction, and to colleagues' fiction, in-class writing exercises, intensive reading, and thinking about literature, in equal parts, and attendance at readings.

Prerequisite: ENGL396 or ENGL352; or permission of department.

0101	Rion Scott Tu 3:30pm - 6:00pm	Seats (Total: 15) TWS 3252
0201	Gabrielle Fuentes M 3:30pm - 6:00pm	Seats (Total: 15) TWS 3134

0301	Nicole Cuffy	Seats (Total: 15)
	Th 3:30pm - 6:00pm	TWS 3136

ENGL499 **Advanced Poetry Workshop; Advanced Poetry Workshop**

(Perm req)

Credits: 3

Grading Method: Regular, Pass-Fail

An advanced class in the making of poetry. Intensive discussion of students' own poems. Readings include both poetry and essays about poetry by practicing poets. Writing short critical prose pieces, responding critically to colleagues' poems, in-class and outside writing exercises, and attendance at poetry readings.

Prerequisite: ENGL397 or ENGL353; or permission of department.

0101	Michael Collier	Seats (Total: 15)
	M 3:30pm - 6:00pm	TWS 3132

ENGL601 **Literary Research and Critical Contexts**

(Perm req)

Credits: 3

Grading Method: Regular, Audit, Sat-Fail

0101	Lee Konstantinou	Seats (Total: 14)
	M 3:30pm - 6:00pm	TWS 3250

ENGL611 **Approaches to College Composition**

(Perm req)

Credits: 3

Grading Method: Regular, Audit, Sat-Fail

Prerequisite: Permission of ARHU-English department. Additional information: Required for graduate assistants (optional to other graduate students).

A seminar emphasizing rhetorical and linguistic foundations for the handling of a course in freshman composition.

0101	Scott Wible	Seats (Total: 14)
	Th 12:00pm - 2:30pm	TWS 3134

ENGL626 **Readings in American Literature before 1865**

(Perm req)

Credits: 3

Grading Method: Regular, Audit, Sat-Fail

0101	Robert Levine Tu 6:30pm - 9:00pm	Seats (Total: 14) TWS 3134

ENGL631 **Readings in 20th Century American Literature**

(Perm req)

Credits: 3 Grading Method: Regular, Audit, Sat-Fail

0101	David Wyatt Tu 3:30pm - 6:00pm	Seats (Total: 14) TWS 3132

ENGL658B **Readings in Multi-Ethnic Literatures of the Americas; Drugs and Terror**

(Perm req)

Credits: 3 Grading Method: Regular, Audit, Sat-Fail

Highlights the cultural diversity of American literatures from various periods, including Latino/a, Native American, Asian American, and African American literatures within and beyond the United States.

0101	Sharada Balachandran Orihuela W 3:30pm - 6:00pm	Seats (Total: 14) TWS 3136

ENGL679 **Professional and Career Mentoring for Master's Students**

(Perm req)

Credits: 1-3 Grading Method: Sat-Fail

Augments advising currently provided by the English Department Graduate Studies Office. Individual professional and career mentoring for MA and MFA students from a faculty member.

Contact department for information to register for this course.

ENGL688 **Poetry Workshop; Poetry Workshop**

(Perm req)

Credits: 3 Grading Method: Regular, Audit, Sat-Fail

Poetry workshop.

0101	Joshua Weiner W 3:30pm - 6:00pm	Seats (Total: 12) TWS 3134

ENGL689 **Fiction Workshop; Fiction Workshop**

(Perm req)

Credits: 3 Grading Method: Regular, Audit, Sat-Fail

Fiction workshop.

0101	Rion Scott W 3:30pm - 6:00pm	Seats (Total: 12) TWS 3250

ENGL699 **Independent Study**

(Perm req)

Credits: 1-3 Grading Method: Regular, Audit, Sat-Fail

Contact department for information to register for this course.

ENGL708C **Seminar in Rhetoric; Feminist Rhetorics**

(Perm req)

Credits: 3 Grading Method: Regular, Audit, Sat-Fail

Topics in rhetoric: history of rhetorical theory, modern rhetorical theory, rhetorical interpretation, composition theory, rhetoric of social groups.

0101	Jessica Enoch Tu 3:30pm - 6:00pm	Seats (Total: 11) TWS 3136

ENGL719E **Seminar in Renaissance Literature; Lyric Theory and Early Modern Poetics**

(Perm req)

Credits: 3 Grading Method: Regular, Audit, Sat-Fail

0101	Scott Trudell W 3:30pm - 6:00pm	Seats (Total: 11) TWS 3252

ENGL749M **Studies in Twentieth-Century Literature; Modern Fiction, the Global Intertext, and Writing Back**

(Perm req)

Credits: 3 Grading Method: Regular, Audit, Sat-Fail

0101	Brian Richardson Th 6:30pm - 9:00pm	Seats (Total: 11) TWS 3136

ENGL749N **Studies in Twentieth-Century Literature; Black Performance: From Slavery to Hip Hop**

(Perm req)

Credits: 3 Grading Method: Regular, Audit, Sat-Fail

0101	Julius Fleming Th 3:30pm - 6:00pm	Seats (Total: 11) TWS 3132

ENGL759C **Seminar in Literature and the Other Arts; Book Lab: How To Do Things With Books**

(Perm req)

Credits: 3 Grading Method: Regular, Audit, Sat-Fail

0101	Matthew Kirschenbaum Tu 6:30pm - 9:00pm	Seats (Total: 11) TWS 3250

ENGL788 **Studies in Poetic Form**

(Perm req)

Credits: 3 Grading Method: Regular, Audit, Sat-Fail

0101	Elizabeth Arnold M 3:30pm - 6:00pm	Seats (Total: 11) TWS 3136

ENGL789 **Form and Theory in Fiction**

(Perm req)

Credits: 3 Grading Method: Regular, Audit, Sat-Fail

A variety of prose modes (mediations, psychological studies, reportage myths, collage, magic realism, satire, etc.). Some of the writers to be read include Kafka, Cather, Barth, Kundera, and Barthelme.

0101	Maud Casey Th 3:30pm - 6:00pm	Seats (Total: 11) TWS 3134

ENGL798B **Critical Theory Colloquium**

(Perm req)

Credits: 1 Grading Method: Sat-Fail, Audit

An intensive advanced exploration of current problems and issues in critical theory.

0101	Christina Walter TBA	Seats (Total: 15) TWS 3132

ENGL798D **Critical Theory Colloquium; Digital Studies**

(Perm req)

Credits: 1 Grading Method: Regular, Audit, Sat-Fail

An intensive advanced exploration of current problems and issues in critical theory.

Cross-listed with MITH729. Credit granted for MITH729 or ENGL798D. Class meets in TWS 3136 on the following dates: 2/10, 2/24, 3/3, 3/31, and 4/28.

0101	Matthew Kirschenbaum	Seats (Total: 20)
	Meets February 10, 2020 - April 28, 2020	
	F 3:00pm - 5:00pm	Location: TBA

ENGL799 **Master's Thesis Research**

(Perm req)

Credits: 1-6 Grading Method: Sat-Fail

Contact department for information to register for this course.

ENGL809 **Academic Publishing Workshop**

(Perm req)

Credits: 1-2 Grading Method: Sat-Fail

A workshop for the preparation of articles of other critical writing for publication in academic journals or other professional venues.

0101	GerShun Avilez	Seats (Total: 12)
	Contact instructor or department for details.	

ENGL878 **Pedagogical Mentoring for Doctoral Students**

(Perm req)

Credits: 1-3 Grading Method: Sat-Fail

Pedagogical mentoring by roster faculty members for graduate students teaching 200-level literature courses.

Contact department for information to register for this course.

ENGL879 **Professional Mentoring for Doctoral Students**

(Perm req)

Credits: 1-3 Grading Method: Sat-Fail

Augments advising currently provided by the English Department Graduate Studies Office. Individual professional and career mentoring for PhD students from a faculty member.

Contact department for information to register for this course.

ENGL898 **Pre-Candidacy Research**

(Perm req)

Credits: 1-8 Grading Method: Regular, Sat-Fail

Pedagogical mentoring by roster faculty members for graduate students teaching 200-level literature courses.

Contact department for information to register for this course.

ENGL899 **Doctoral Dissertation Research**

(Perm req)

Credits: 6 Grading Method: Sat-Fail

Contact department for information to register for this course.

ENMA Engineering, Materials Spring 2020

ENMA289A **Bigger, Faster, Better: The Quest for Absolute Technology**

Credits: 3 | Grading Method: Regular, Pass-Fail, Audit | CORE: PS | General Education: DSNS, SCIS

Credit only granted for: ENMA201 or ENMA289A. Formerly: ENMA289A.

The goal of the course is to familiarize the students with applied science and engineering concepts necessary to understand technological advances, breakthroughs and world-leading achievements that have shaped our present lives and will impact our future. The political, economic, and personal driving forces behind selected technological transformations, societal contexts, and conflicts that are inherent in unsustainable technology will also be covered.

0101	Gottlieb Oehrlein TuTh 12:30pm - 1:45pm F 11:00am - 11:50am	Seats (Total: 30) CHE 2108 CHM 0119	Discussion
0102	Gottlieb Oehrlein TuTh 12:30pm - 1:45pm F 10:00am - 10:50am	Seats (Total: 30) CHE 2108 CHM 0119	Discussion

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ENMA300 **Introduction to Materials Engineering**

(Perm req)

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Prerequisite: ENES100; and permission of ENGR-Materials Science & Engineering department. Corequisite: MATH241. Recommended: PHYS261 and PHYS260. Restriction: Permission of ENGR-Mechanical Engineering department. Cross-listed with ENME382. Credit only granted for: ENMA300 or ENME382.

Structure of materials, chemical composition, phase transformations, corrosion and mechanical properties of metals, ceramics, polymers and related materials. Materials selection in engineering applications.

0101	Samuel Schwarm MWF 9:00am - 9:50am	Seats (Total: 100) JMP 3201	
0201	Liyang Dai-Hattrick TuTh 9:30am - 10:45am	Seats (Total: 100) CHE 2110	
0301	Liyang Dai-Hattrick TuTh 11:00am - 12:15pm *Restricted to students majoring in Materials Science and Engineering.*	Seats (Total: 49) CHE 2118	

ENMA301 **Modern Materials Engineering**

(Perm req)

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Prerequisite: ENMA180; or students who have taken courses with comparable content may contact the department. And ENMA300; and permission of ENGR-Materials Science & Engineering department.

Five topical areas will be presented, each leading up to specific applications that have recently come to market or are currently experiencing heavy research and development. The goal of each module will be to introduce the basic materials science principles necessary to understand these new areas.

0101	Oded Rabin TuTh 9:30am - 10:45am	Seats (Total: 46) CSI 2107	

ENMA312 **Experimental Methods in Materials Science**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Prerequisite: ENMA300. Corequisite: ENMA460. Restriction: Junior standing or higher.

Introduction to experimental methods in materials characterization; synthesis of colloidal nanoparticles; X-ray diffraction and light scattering; optical microscopy; thermal conductivity and expansion; electrical measurements; heat capacity; computational materials design.

0101	Audaldo Ponce Tu 8:00am - 9:15am W 9:00am - 11:50am	Seats (Total: 12) KEB 1135 KEB 1135	 Lab
0102	Audaldo Ponce Tu 8:00am - 9:15am M 9:00am - 11:50am	Seats (Total: 12) KEB 1135 KEB 1135	 Lab

ENMA410 **Materials for Energy I**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Prerequisite: Minimum grade of C- in ENMA300; and permission of ENGR-Materials Science & Engineering department. Credit only granted for: ENMA410 or ENMA489H. Formerly: ENMA 489H.

The goal is to demonstrate the role of materials in solving one of the most critical socio-economic issues of our time, affordable and sustainable energy. There will be a discussion of U.S. and global energy and related environmental issues. Topics covered include: fuel cells and batteries (electrochemical energy conversion and storage); catalysts and membrane separations (fossil fuel and biomass energy conversion); and nuclear fuels.

0101	Eric Wachsman	Seats (Total: 25)
	TuTh 12:30pm - 1:45pm	MTH 0403

ENMA421 **Design of Composites**

(Perm req)

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Restriction: Permission of ENGR-Materials Science & Engineering department. Credit only granted for: ENMA421 or ENMA489A. Formerly: ENMA489A.

Fundamentals of design, processing and selection composite materials for structural applications will be covered. The topics include a review of all classes of materials, an in-depth analysis of micro and macro mechanical behavior including interactions at the two-phase interfaces, modeling of composite morphologies for optimal microstructures, material aspects, cost considerations, processing methods including consideration of chemical reactions and stability of the interfaces, and materials selection considerations.

0101	Sreeramamurthy Ankem	Seats (Total: 25)
	MW 3:30pm - 4:45pm	CHE 2136

ENMA425 **Introduction to Biomaterials**

(Perm req)

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Recommended: ENMA300. Restriction: Permission of ENGR-Materials Science & Engineering department. Credit only granted for: BIOE453, CHBE457, or ENMA425.

Examination of materials used in humans and other biological systems in terms of the relationships between structure, fundamental properties and functional behavior. Replacement materials such as implants, assistive devices such as insulin pumps and pacemakers, drug delivery systems, biosensors, engineered materials such as artificial skin and bone growth scaffolds, and biocompatibility will be covered.

0101	Peter Kofinas	Seats (Total: 15)
	MW 4:00pm - 5:15pm	AJC 2132

ENMA426 **Reliability of Materials**

(Perm req)

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Restriction: Permission of ENGR-Materials Science & Engineering department. Credit only granted for: ENMA426 or ENMA489R. Formerly: ENMA489R.

Students are taught the basic degradation mechanisms of materials, through the understanding of the physics, chemistry, mechanics of such mechanisms. Mechanical failure mechanisms concentrate on fatigue, and creep. Chemical failure mechanisms emphasize corrosion and oxidation. Physical mechanisms such as diffusion, electromigration, defects and defect migration, surface trapping mechanisms, charge creation and migration are also included.

0101	Aristos Christou	Seats (Total: 25)
	TuTh 9:30am - 10:45am	CHM 1228

ENMA445 **Liquid Crystals and Structured Soft Materials**

(Perm req)

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Prerequisite: MATH246, PHYS270, and PHYS271. Restriction: Permission of ENGR-Materials Science & Engineering department. Credit only granted for: ENMA445 or ENMA489L. Formerly: ENMA489L.

Elective course on the properties and behavior of liquid crystals and related soft materials, and their relationship to biomaterials and to applications.

0101	Luz Martinez-Miranda	Seats (Total: 10)
	TuTh 2:00pm - 3:15pm	CHE 2118

ENMA460 **Physics of Solid Materials**

(Perm req)

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Prerequisite: PHYS271, PHYS270, and MATH241. Restriction: Junior standing or higher; and must be in Engineering: Materials Science program. Cross-listed with: PHYS431. Credit only granted for: ENMA460 or PHYS431.

Classes of materials; introduction to basic ideal and real materials' behavior including mechanical, electrical, thermal, magnetic and optical responses of materials; importance of microstructure in behavior. One application of each property will be discussed in detail.

0101	Johnpierre Paglione MW 5:00pm - 6:15pm	Seats (Total: 20) PHY 1402

ENMA461 **Thermodynamics of Materials**

(Perm req)

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Prerequisite: ENMA300. Restriction: Junior standing or higher.

Thermodynamic aspects of materials; basic concepts and their application in design and processing of materials and systems. Topics include: energy, entropy, adiabatic and isothermal processes, internal and free energy, heat capacity, phase equilibria and surfaces and interfaces.

0101	Yifei Mo TuTh 12:30pm - 1:45pm	Seats (Total: 45) CHE 2118

ENMA465 **Microprocessing Materials**

(Perm req)

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Prerequisite: ENMA300. Restriction: Permission of ENGR-Materials Science & Engineering department. Credit only granted for: ENMA363, ENMA489B, or ENMA465. Formerly: ENMA363.

Micro and nanoscale processing of materials. Emphasis on thin film processing for advanced technologies.

0101	Gary Rubloff MW 3:30pm - 4:45pm	Seats (Total: 55) ATL 2324

ENMA470 **Materials Selection for Engineering Design**

(Perm req)

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Prerequisite: ENMA300; and permission of ENGR-Materials Science & Engineering department. Credit only granted for: ENMA 470 or ENMA 489O. Formerly: ENMA 489O.

Students will learn about materials classes, properties, limitations and applications and the methodology of materials selection in engineering design.

0101	Timothy Foecke MWF 12:00pm - 12:50pm	Seats (Total: 40) PHY 1201

ENMA472 **Additive Manufacturing of Materials**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Prerequisite: ENMA300. Restriction: Must be in Engineering: Materials Science program. Credit only granted for: ENMA472 or ENMA672.

Additive manufacturing approaches for metals, ceramics and polymers will be explored in terms of manufacturability and how processing parameters affect microstructure and properties. The course will include projects, including a Terrapin Works project to design and build a part, to develop an understanding of the current state of additive manufacturing, its future promise and its limitations.

0101	Isabel Lloyd	Seats (Total: 30)	
	TuTh 11:00am - 12:15pm	JMP 2202	
	TuTh 10:00am - 10:50am	KEB 1135	Lab

ENMA476 **Manufacturing: Materials Design and Systems Integration**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Restriction: Must be in Engineering: Materials Science program.

The fundamentals of nanomanufacturing based on state-of-the-art and future prospects in materials design and systems integration. The course examines functional nanomaterials design and synthesis, structural assembly from nanoscale to macroscale, and device fabrication. Distinct from the current curricular paradigm in many nanotechnology programs that focus on underlying science, this course emphasizes the immediate need for scale-up, process robustness, and system integration issues. Featuring case studies from industry, end of chapter problems, and study questions, the course is for upper-level undergraduate and graduate students, who are interested in the future of manufacturing innovation and technology.

0101	Liangbing Hu	Seats (Total: 25)	
	TuTh 2:00pm - 3:15pm	CHE 2136	

ENMA481 **Introduction to Electronic and Optical Materials**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Prerequisite: ENMA300; or students who have taken courses with comparable content may contact the department.

Electronic, optical and magnetic properties of materials. Emphasis on materials for advanced optoelectronic and magnetic devices and the relationship between properties and the processing/fabrication conditions.

0101	Ichiro Takeuchi	Seats (Total: 15)	
	TuTh 5:00pm - 6:15pm	PHY 1219	

ENMA486 **Seminar in Materials Science and Engineering**

Credits: 1 Grading Method: Regular, Pass-Fail, Audit

Restriction: Must be in Engineering: Materials Science program.

Current research in materials science and engineering and related fields. The lectures are presented by scientists and engineers from academia, national laboratory, US government, etc., in the format of seminars.

0101	Ji-Cheng Zhao, Timothy Koeth	Seats (Total: 3)	
	F 1:00pm - 2:30pm	CHE 2110	

ENMA489T **Selected Topics in Engineering Materials; Accelerator Physics - Building the Maryland 5 MeV Cyclotron**

(Perm req)

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Selected topics of current importance in materials science and engineering.

Prerequisite: PHYS270 and PHYS271; senior standing, and permission of department.

0101	Timothy Koeth	Seats (Total: 3)	
	TuTh 9:30am - 10:45am	EGR 1102	
	F 9:00am - 12:00pm	EGR 0312	Lab

ENMA490 **Materials Design**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Prerequisite: Minimum grade of C- in ENMA487. Restriction: Senior standing.

Capstone design course. Students work in teams on projects evaluating a society or industry based materials problem and then design and evaluate a strategy to minimize or eliminate the problem; includes written and oral presentations.

Class meets in Clark Hall Innovation lab, Bay area 5 and 6.

0101	Raymond Phaneuf	Seats (Total: 41)	
	TuTh 3:30pm - 5:30pm	Location: TBA	

ENMA499 **Senior Laboratory Project**

(Perm req)

Credits: 1-3

Grading Method: Regular, Pass-Fail, Audit

Students work with a faculty member on an individual laboratory project in one or more of the areas of engineering materials. Students will design and carry out experiments, interpret data and prepare a comprehensive laboratory report.

0101	Lourdes Salamanca-Riba	Seats (Total: 5)
	Contact instructor or department for details.	

ENMA620 **Polymer Physics**

(Perm req)

Credits: 3

Grading Method: Regular, Audit, Sat-Fail

Prerequisite: ENMA471; or permission of instructor. Restriction: Permission of ENGR-Materials Science & Engineering department.

The thermodynamics, structure, morphology and properties of polymers. Developing an understanding of the relationships between theory and observed behavior in polymeric materials.

0101	Mohamad Al-Sheikhly	Seats (Total: 25)
	MW 5:00pm - 6:15pm	CHM 0119

ENMA621 **Advanced Design Composite Materials**

(Perm req)

Credits: 3

Grading Method: Regular, Audit, Sat-Fail

Restriction: Permission of ENGR-Materials Science & Engineering department. Credit only granted for: ENMA621 or ENMA698A. Formerly: ENMA698A.

Fundamentals of design, processing, and selection of composite materials for structural applications are covered. The topics include a review of all classes of engineering materials, an in-depth analysis of micro and macro mechanical behavior including interactions at the two-phase interfaces, modeling of composite morphologies for optimal microstructures, material aspects, cost considerations, processing methods- including consideration of chemical reactions, stability of the interfaces and material selection.

0101	Sreeramamurthy Ankem	Seats (Total: 10)
	MW 3:30pm - 4:45pm	CHE 2136

ENMA633 **Advanced Characterization of Soft Matter Materials**

Credits: 3 Grading Method: Regular, Sat-Fail

Restriction: Permission of ENGR-Materials Science & Engineering department.

This course is focused on both the theories and experimental works of studying structure and dynamics of soft matter materials using scattering techniques (light, x-ray and neutron scattering). These scattering techniques can probe the structure from a few Angstrom to micrometer and the dynamics from picosecond to second, are thus widely used to reveal the structure-performance relationship of different materials. The course discusses the physics principles of these techniques and explains the details of general theories and commonly used models in characterizing soft matter materials such as polymer, protein, colloidal, thin film, and gel systems.

0101	Yun Liu, Yimin Mao	Seats (Total: 25)
	TuTh 5:00pm - 6:15pm	EGR 1102

ENMA645 **Advanced Liquid Crystals and Other Monomeric Soft Matter Materials**

(Perm req)

Credits: 3 Grading Method: Regular, Audit, Sat-Fail

Restriction: Permission of ENGR-Materials Science & Engineering department.

Elective course on the properties and behavior of liquid crystal and related soft materials, and their relationship to biomaterials and applications.

0101	Luz Martinez-Miranda	Seats (Total: 10)
	TuTh 2:00pm - 3:15pm	CHE 2118

ENMA661 **Kinetics of Reactions in Materials**

(Perm req)

Credits: 3 Grading Method: Regular, Audit, Sat-Fail

Prerequisite: ENMA660. Restriction: Permission of ENGR-Materials Science & Engineering department.

The theory of thermally activated processes in solids as applied to diffusion, nucleation and interface motion. Cooperative and diffusionless transformations. Applications selected from processes such as allotropic transformations, precipitation, martensite formation, solidification, ordering, and corrosion.

0101	Daniel Josell	Seats (Total: 28)
	TuTh 5:00pm - 6:15pm	CHE 2145

ENMA671 **Defects in Materials**

(Perm req)

Credits: 3

Grading Method: Regular, Audit, Sat-Fail

Restriction: Permission of ENGR-Materials Science & Engineering department.

Fundamental aspects of point (electronic and atomic) defects, dislocations, and surfaces and interfaces in materials. Defect interactions, defect models, and effects of zero, one and two dimensional defects on material behavior.

0101	Lourdes Salamanca-Riba	Seats (Total: 25)	
	TuTh 3:30pm - 4:45pm	JMP 1109	

ENMA672 **Additive Manufacturing of Materials**

Credits: 3

Grading Method: Regular, Sat-Fail

Restriction: Must be in one of the following programs (ENGR: MS/PhDMaterials Science and Engineering (Doctoral); ENGR: MS/PhDMaterials Science and Engineering (Master's)). Credit only granted for: ENMA472 or ENMA672.

Additive manufacturing approaches for metals, ceramics and polymers will be explored in terms of manufacturability and how processing parameters affect microstructure and properties. The course will include projects, including a Terrapin Works project to design and build a part, to develop an understanding of the current state of additive manufacturing, its future promise and its limitations.

0101	Isabel Lloyd	Seats (Total: 5)	
	TuTh 11:00am - 12:15pm	JMP 2202	
	TuTh 10:00am - 10:50am	KEB 1135	Lab

ENMA685 **Advanced Electrical and Optical Materials**

Credits: 3

Grading Method: Regular, Audit, Sat-Fail

Credit only granted for: ENMA685 or ENMA698F. Formerly: ENMA698F.

Students become familiar with basic and state of the art knowledge of some technologically relevent topics in materials engineering and applied physics, including dielectric/ferroelectric materials, magnetic materials, superconductors, multiferroic materials and optical materials with an underlying emphasis on the thin film and device fabrication technology. Fundamental physical properties and descriptions of different materials and their applications are included. Discussion will include new developments in the fields.

0101	Ichiro Takeuchi	Seats (Total: 5)	
	TuTh 5:00pm - 6:15pm	PHY 1219	

ENMA688 **Seminar in Materials Science and Engineering**

Credits: 1 Grading Method: Regular, Audit, Sat-Fail

Current research in materials science and engineering and related fields.

0101	Ji-Cheng Zhao, Timothy Koeth	Seats (Total: 28)
	F 1:00pm - 2:30pm	CHE 2110

ENMA698 **Special Problems in Materials Science and Engineering**

(Perm req)

Credits: 1-3 Grading Method: Regular, Audit, Sat-Fail

Individual, supervised study in materials science and engineering.

Contact department for information to register for this course.

ENMA797 **Independent Study**

Credits: 3 Grading Method: Regular, Audit, Sat-Fail

This course is designed to provide students with a directed independent study course in order to prepare the scholarly paper required for the master's degree without thesis degree option.

0101	Ichiro Takeuchi	Seats (Total: 6)
	Contact instructor or department for details.	

ENMA799 **Master's Thesis Research**

Credits: 1-6 Grading Method: Sat-Fail

Contact department for information to register for this course.

ENMA898 **Pre-Candidacy Research**

Credits: 1-8 Grading Method: Regular, Sat-Fail

Contact department for information to register for this course.

ENMA899 **Doctoral Dissertation Research**

(Perm req)

Credits: 6 Grading Method: Sat-Fail

Contact department for information to register for this course.

ENME201 **Careers in Mechanical Engineering**

Credits: 1 Grading Method: Sat-Fail

The Mechanical Engineering Curriculum, Career Paths. Research areas in the Mechanical Engineering Department. The Mechanical Engineering Profession.

0101	C Mote, Gary Pertmer Th 12:30pm - 1:30pm	Seats (Total: 60) JMP 3201	
0201	Gary Pertmer, C Mote Class time/details on ELMs	Seats (Total: 20) ONLINE	

ENME202 **Computing Fundamentals for Engineers**

(Perm req)

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Corequisite: Must be concurrently enrolled in MATH141. Restriction: Permission of ENGR-Mechanical Engineering department. Credit only granted for: ENAE202 or ENME202.

Introduction to computational tools for the solution of engineering problems. C++ & MATLAB programming including branching and loops, functions, file handling, arrays, and data structures. Students will be introduced to object-oriented programming, basic computing, algorithms, and principles of software engineering.

0201	Don DeVoe TuTh 8:00am - 8:50am Th 3:00pm - 5:00pm	Seats (Total: 42) EGR 1202 KEB 2111	 Lab
0202	Don DeVoe TuTh 8:00am - 8:50am W 5:00pm - 7:00pm	Seats (Total: 42) EGR 1202 KEB 2111	 Lab
0203	Don DeVoe TuTh 8:00am - 8:50am F 11:00am - 1:00pm	Seats (Total: 42) EGR 1202 KEB 2111	 Lab
0204	Don DeVoe TuTh 8:00am - 8:50am W 4:00pm - 6:00pm	Seats (Total: 30) EGR 1202 KEB 2107	 Lab
0205	Don DeVoe TuTh 8:00am - 8:50am W 4:00pm - 6:00pm	Seats (Total: 29) EGR 1202 EGR 0312	 Lab

ENME272 **Introduction to Computer Aided Design**

(Perm req)

Credits: 2 Grading Method: Regular, Pass-Fail, Audit

Prerequisite: ENES100; and must have completed or be concurrently enrolled in MATH141. Restriction: Permission of ENGR-Mechanical Engineering department. Credit only granted for: ENME 414 or ENME272.

Fundamentals of CAD, using solid modeling packages (Pro/E, SolidWorks, and Autodesk Inventor). Two and three dimensional drawing. Dimensioning and specifications. Introduction of CAD based analysis tools. Students will complete a design project.

0101	Ryan Smith M 8:00am - 9:50am	Seats (Total: 42) KEB 2111	
0201	Ryan Smith W 8:00am - 9:50am	Seats (Total: 42) KEB 2111	
0301	Mohammad Fazelpour F 8:00am - 9:50am	Seats (Total: 42) KEB 2111	
0401	Mohammad Fazelpour Th 8:00am - 9:50am	Seats (Total: 42) KEB 2111	
0501	Mohammad Fazelpour Tu 8:00am - 9:50am	Seats (Total: 42) KEB 2111	

ENME331 **Fluid Mechanics**

(Perm req)

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Prerequisite: ENES232 and ENES221. Credit only granted for: BIOE331, ENCE305, ENFP300, or ENME331.

Principles of fluid mechanics. Mass, momentum and energy conservation. Hydrostatics. Control volume analysis. Internal and external flow. Boundary layers. Modern measurement techniques. Computer analysis. Laboratory experiments.

0101	Siddhartha Das, Amir Riaz MW 12:00pm - 12:50pm Th 3:00pm - 4:40pm	Seats (Total: 35) EGR 1202 JMP 1202	 Lab

0102	Amir Riaz, Siddhartha Das MW 12:00pm - 12:50pm W 1:00pm - 2:50pm	Seats (Total: 36) EGR 1202 CHE 2118	Lab
0103	Amir Riaz, Siddhartha Das MW 12:00pm - 12:50pm Th 1:00pm - 2:50pm	Seats (Total: 36) EGR 1202 PHY 0405	Lab
0104	Siddhartha Das, Amir Riaz MW 12:00pm - 12:50pm W 3:00pm - 4:50pm	Seats (Total: 38) EGR 1202 JMP 2202	Lab

ENME332 **Transfer Processes**

(Perm req)

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Prerequisite: ENME331. Credit only granted for: ENME332 or ENFP312.

The principles of heat transfer. Conduction in solids. Convection. Radiation. Modern measurement techniques. Computer analysis.

0101	Marino diMarzo, Amir Riaz MW 9:00am - 9:50am Tu 1:00pm - 2:50pm	Seats (Total: 38) KEY 0106 JMP 1202	Lab
0102	Amir Riaz, Marino diMarzo MW 9:00am - 9:50am W 1:00pm - 2:50pm	Seats (Total: 38) KEY 0106 PHY 0405	Lab
0103	Marino diMarzo, Amir Riaz MW 9:00am - 9:50am Th 1:00pm - 2:50pm	Seats (Total: 38) KEY 0106 JMP 1202	Lab
0104	Marino diMarzo, Amir Riaz MW 9:00am - 9:50am M 1:00pm - 2:50pm	Seats (Total: 38) KEY 0106 CHE 2136	Lab
0106	Amir Riaz, Marino diMarzo MW 9:00am - 9:50am M 3:00pm - 4:50pm	Seats (Total: 38) KEY 0106 CHE 2118	Lab

ENME350 **Electronics and Instrumentation I**

(Perm req)

Credits: 3 Grading Method: Regular, Pass-Fail

Prerequisite: PHYS271 and PHYS270.

Modern instrumentation. Basic circuit design, standard microelectronic circuits. Digital data acquisition and control. Signal conditioning. Instrumentation interfacing. Designing and testing of analog circuits. Laboratory experiments.

0101	Jungho Kim, Xinan Liu MW 8:00am - 8:50am M 1:00pm - 2:50pm	Seats (Total: 40) EGR 1202 EGR 3108	 Lab
0102	Xinan Liu, Jungho Kim MW 8:00am - 8:50am Tu 3:30pm - 5:20pm	Seats (Total: 40) EGR 1202 EGR 3108	 Lab
0103	Xinan Liu, Jungho Kim MW 8:00am - 8:50am W 3:30pm - 5:20pm	Seats (Total: 40) EGR 1202 EGR 3108	 Lab
0104	Jungho Kim, Xinan Liu MW 8:00am - 8:50am Th 3:30pm - 5:20pm	Seats (Total: 40) EGR 1202 EGR 3108	 Lab

ENME351 **Electronics and Instrumentation II**

(Perm req)

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Prerequisite: PHYS271, ENME350, and PHYS270.

Continuation of ENME 350. Modern instrumentation. Basic circuit design, standard microelectronic circuits. Digital data acquisition and control. Signal conditioning. Instrumentation interfacing. Designing and testing of analog circuits. Laboratory experiments.

Lecture in ESJ202 (TERP, tiered collab room). Justification- The instru ctor has students work with one another from time to time and we expect the need for the course to increase by another 50-60 students for next s pring. There aren't many classroom options in or near EGR at this point that could accommodate a large course like it.

0101	Steven Mitchell, Axel Krieger MW 10:00am - 10:50am M 3:30pm - 5:20pm	Seats (Total: 40) ARM 0131 EGR 3108	 Lab

0102	Axel Krieger, Steven Mitchell MW 10:00am - 10:50am Th 1:00pm - 2:50pm	Seats (Total: 40) ARM 0131 EGR 3108	 Lab
0103	Steven Mitchell, Axel Krieger MW 10:00am - 10:50am W 1:00pm - 2:50pm	Seats (Total: 40) ARM 0131 EGR 3108	 Lab
0106	Axel Krieger, Steven Mitchell MW 10:00am - 10:50am Tu 1:00pm - 2:50pm	Seats (Total: 40) ARM 0131 EGR 3108	 Lab
0107	Steven Mitchell, Axel Krieger MW 10:00am - 10:50am F 1:00pm - 2:50pm	Seats (Total: 36) ARM 0131 EGR 3108	 Lab

ENME361 **Vibration, Controls and Optimization I**

(Perm req)

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Prerequisite: ENES220, ENES221, and MATH246; and (MATH206 or ENME202). Restriction: Must be in Engineering: Mechanical program.

Fundamentals of vibration, controls and optimization. Analysis and design in time, Laplace and frequency domains. Mathematical description of system response, system stability, control and optimization. Optimal design of mechanical systems.

0101	Amr Baz TuTh 9:30am - 10:45am	Seats (Total: 120) JMP 3201	
0301	Eleonora Tubaldi TuTh 9:30am - 10:45am	Seats (Total: 75) CSI 3117	

ENME371 **Product Engineering and Manufacturing**

(Perm req)

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Prerequisite: ENES221; and (ENME392 or STAT400). Restriction: Must be in Engineering: Mechanical program.

Business aspects of engineering product development. Relationship of design and manufacturing. Product specification. Statistical process control. Design team development. The development process.

0201	Vincent Nguyen MW 11:00am - 11:50am W 4:00pm - 5:50pm	Seats (Total: 35) EGR 1202 EGL 0101	 Lab
0202	Vincent Nguyen MW 11:00am - 11:50am Th 3:00pm - 4:50pm	Seats (Total: 35) EGR 1202 EGL 0101	 Lab
0203	Vincent Nguyen MW 11:00am - 11:50am F 9:00am - 10:50am	Seats (Total: 35) EGR 1202 EGL 0101	 Lab
0204	Vincent Nguyen MW 11:00am - 11:50am Th 5:00pm - 6:50pm	Seats (Total: 35) EGR 1202 EGL 0101	 Lab
0205	Vincent Nguyen MW 11:00am - 11:50am Th 7:00pm - 8:50pm	Seats (Total: 35) EGR 1202 EGL 0101	 Lab

ENME382 **Introduction to Materials Engineering**

(Perm req)

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Prerequisite: ENES100; and permission of ENGR-Mechanical Engineering department. Corequisite: MATH241. Recommended: PHYS261 and PHYS260. Restriction: Permission of ENGR-Mechanical Engineering department. Cross-listed with ENMA300. Credit only granted for: ENMA300 or ENME382.

Structure of materials, chemical composition, phase transformations, corrosion and mechanical properties of metals, ceramics, polymers and related materials. Materials selection in engineering applications.

0101	Samuel Schwarm MWF 9:00am - 9:50am	Seats (Total: 100) JMP 3201
0201	Liyang Dai-Hattrick TuTh 9:30am - 10:45am	Seats (Total: 100) CHE 2110

ENME392 **Statistical Methods for Product and Processes Development**

(Perm req)

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Prerequisite: MATH241.

Integrated statistical methodology for the improvement of products and processes in terms of performance, quality and cost. Designed experimentation. Statistical process control. Software application. Laboratory activities.

0101	Hosam Fathy TuTh 11:00am - 12:15pm	Seats (Total: 120) JMP 3201	
0201	Michel Cukier TuTh 11:00am - 12:15pm	Seats (Total: 80) KEB 1110	

ENME400 **Machine Design**

(Perm req)

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Prerequisite: Must have completed or be concurrently enrolled in ENME361. Restriction: Permission of ENGR-Mechanical Engineering department.

Design of mechanical elements and planar machines. Failure theories. Design of pressure vessels, joints, rotating elements, and transmission elements. Kinematic structures, graphical, analytical, and numerical analysis and synthesis of linkages, gear trains, and flywheels are covered.

0101	Chandrasekhar Thamire TuTh 3:30pm - 4:20pm F 1:00pm - 2:50pm	Seats (Total: 75) BPS 1250 CSI 2117	 Discussion
0102	Chandrasekhar Thamire TuTh 3:30pm - 4:20pm F 10:00am - 11:50am	Seats (Total: 70) BPS 1250 CSI 2117	 Discussion

ENME406 **Roller Coaster Engineering**

(Perm req)

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Prerequisite: ENES220, ENES221, and ENME272. And ENME202; or MATH206. Corequisite: ENME400. Restriction: Permission of ENGR-Mechanical Engineering department.

Engineering of roller coasters including: specifications, concept creation, structural design, car design, and safety. Course covers biomechanics and rider kinematics as well as manufacturing aspects.

0101	Chandrasekhar Thamire TuTh 2:00pm - 3:15pm	Seats (Total: 35) JMP 1109	

ENME408 **Selected Topics in Engineering Design; Automotive Design**

(Perm req)

Credits: 3

Grading Method: Regular, Pass-Fail, Audit

Creativity and innovation in design. Generalized performance analysis, reliability and optimization as applied to the design of components and engineering systems. Use of computers in design of multivariable systems.

Restriction: Must be in Engineering: Mechanical program; and senior standing. Or permission of ENGR-Mechanical Engineering department. Repeatable to 6 credits if content differs. Creativity and innovation in design. Generalized performance analysis, reliability and optimization as applied to the design of components and engineering systems. Use of computers in design of multivariable systems.

0101	Leonard Hamilton	Seats (Total: 50)
	MW 5:00pm - 6:15pm	CHE 2110

ENME421 **Engineering Design Ideation**

(Perm req)

Credits: 3

Grading Method: Regular, Pass-Fail, Audit

Prerequisite: Must have completed or be concurrently enrolled in ENME371. Restriction: Junior standing or higher. Additional information: Ideally, this course should be taken prior to capstone design.

Engineering Design Methods is a technical elective for engineering students who wish to improve their ability to produce design ideas (i.e., the ideation process) for further development into conceptual ideas. Ideation is the creative, idea generation activity that happens at the beginning of the conceptual design process. Ideation methods are often built around creativity improving strategies and are often designed for individual use prior to presenting the results in a team setting.

0101	Linda Schmidt	Seats (Total: 40)
	TuTh 12:30pm - 1:45pm	EGR 3106

ENME424 **Urban Microclimate and Energy**

(Perm req)

Credits: 3

Grading Method: Regular, Pass-Fail, Audit

Prerequisite: Must have completed or be concurrently enrolled in ENME332. Recommended: ENME423. Restriction: Permission of ENGR-Mechanical Engineering department. Credit only granted for: ENME424 or ENME808I.

Urban microclimate from the perspective of transient heat and mass transfer using building energy simulations for building clusters as well as LEED building certification criteria. The focus is on understanding building energy consumption and environmental impacts from the individual building scale to a neighborhood scale.

0101	Jelena Srebric	Seats (Total: 20)
	TuTh 12:30pm - 1:45pm	ESJ 1309

ENME427 **CSI Mechanical: Finding Reasons for Compromised Structural Integity**

(Perm req)

Credits: 3

Grading Method: Regular, Pass-Fail, Audit

Prerequisite: ENES220 and ENME382. Restriction: Permission of ENGR-Mechanical Engineering department.

Understanding the causes of product failures including the political, societal, economic, environmental, and ethical impact of these failures, and the strategies to avoid, postpone, or mitigate them. Students will be encouraged to combine concepts from engineering, natural sciences, social sciences, and the humanities to address these complex issues. Basics of failure analysis, forensics, and reliability engineering and the scientific fundamentals underlying the most common types of failure. Issues of legal liability. Methods for monitoring the existing condition of a structure.

0101	Patrick McCluskey	Seats (Total: 55)
	MW 3:30pm - 4:45pm	PHY 1204

ENME431 **Nuclear Reactor Systems and Safety**

(Perm req)

Credits: 3

Grading Method: Regular, Pass-Fail, Audit

Prerequisite: MATH246. Recommended: ENME430. Restriction: Permission of ENGR-Mechanical Engineering department.

Engineering, material and thermal aspects of light water reactors, fast reactors, high temperature gas reactors, heavy water moderated reactors, breeder reactors, advanced reactors including GEN IV designs. Evolution of light water reactor safety and regulation in the US that has culminated in the current body of regulations.

0101	Robert Sanders	Seats (Total: 40)
	MW 2:00pm - 3:15pm	AJC 2132

ENME436 **Renewable Energy**

(Perm req)

Credits: 3

Grading Method: Regular, Pass-Fail, Audit

Prerequisite: ENME331. Restriction: Must be in a major within the ENGR-Mechanical Engineering department. Credit only granted for: ENME489K or ENME436. Formerly: ENME489K.

Fundamentals, design/analysis tools, and state of the art renewable energy technologies. Energy resources and global perspectives of current and future energy demand/consumption trends, followed by prime renewable energy technologies, including wind, solar, hydro, geothermal, and ocean thermal energy conversion. Economics of renewable energy, energy conservation opportunities, CO2 capture and storage, and thermal energy storage.

0101	Ashwani Gupta Tu 4:00pm - 6:40pm	Seats (Total: 46) JMP 2116	

ENME461 **Control Systems Laboratory**

(Perm req)

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Prerequisite: ENME351 and ENME361. Restriction: Permission of ENGR-Mechanical Engineering department. Credit only granted for: ENEE461 or ENME461.

Students will design, implement, and test controllers for a variety of systems. This will enhance their understanding of feedback control familiarize them with the characteristics and limitations of real control devices. Students will also complete a small project. This will entail writing a proposal, purchasing parts for their controller, building the system, testing it, and writing a final report describing what they have done.

Cross-listed with ENEE461. Credit offered for ENME461 or ENEE461.

0101	William Levine MW 9:00am - 9:50am M 1:00pm - 3:50pm	Seats (Total: 14) KEB 1110 KEB 3209	 Lab
0102	William Levine MW 9:00am - 9:50am W 1:00pm - 3:50pm	Seats (Total: 14) KEB 1110 KEB 3209	 Lab
0103	William Levine MW 9:00am - 9:50am F 9:00am - 11:50am	Seats (Total: 14) KEB 1110 KEB 3209	 Lab
0104	William Levine MW 9:00am - 9:50am W 10:00am - 12:50pm	Seats (Total: 14) KEB 1110 KEB 3209	 Lab

ENME462 **Vibrations, Controls, and Optimization II**

(Perm req)

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Prerequisite: ENME351 and ENME361.

Continuation of ENME 361. Fundamentals of vibration, controls, and optimization. Analysis and design in time, Laplace and frequency domains. Mathematical descriptions of system response, system stability, control and optimization. Optimal design of mechanical systems.

0101	Yancy Diaz-Mercado, Jin-Oh Hahn MW 10:00am - 10:50am W 11:00am - 12:50pm	Seats (Total: 29) HJP 0226 EGR 0312	 Lab
0102	Yancy Diaz-Mercado, Jin-Oh Hahn MW 10:00am - 10:50am Th 1:00pm - 2:50pm	Seats (Total: 42) HJP 0226 KEB 2111	 Discussion
0103	Jin-Oh Hahn, Yancy Diaz-Mercado MW 10:00am - 10:50am F 1:00pm - 2:50pm	Seats (Total: 42) HJP 0226 KEB 2111	 Discussion
0104	Jin-Oh Hahn, Yancy Diaz-Mercado MW 10:00am - 10:50am W 8:00am - 9:50am	Seats (Total: 29) HJP 0226 EGR 0312	 Discussion
0105	Yancy Diaz-Mercado, Jin-Oh Hahn MW 10:00am - 10:50am W 11:00am - 12:50pm	Seats (Total: 30) HJP 0226 KEB 2107	 Discussion

ENME464 **Cost Analysis for Engineers**

(Perm req)

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Prerequisite: ENME392; or students who have taken courses with comparable content may contact the department. Restriction: Permission of ENGR-Mechanical Engineering department.

An introduction to the financial and cost analysis aspects of product engineering. Introduces key elements of traditional engineering economics including interest, present worth, depreciation, taxes, inflation, financial statement analysis, and return on investment. Provides an introduction to cost modeling as it applies to product manufacturing and support. Cost modeling topics will include: manufacturing cost analysis, life-cycle cost modeling (reliability and warranty), and cost of ownership.

0101	Peter Sandborn TuTh 2:00pm - 3:15pm	Seats (Total: 90) JMP 3201	

ENME465 **Probability-Based Design**

(Perm req)

Credits: 3

Grading Method: Regular, Pass-Fail, Audit

Prerequisite: MATH206 and ENME392. Restriction: Permission of ENGR-Mechanical Engineering department.

Review of probabilistic distributions, introduction to pseudo-random number generation, and algorithms to produce probability distributions using Monte Carlo simulation via Matlab and other approaches to best design probabilistic engineering problems.

0101	Steven Gabriel MW 3:30pm - 4:45pm	Seats (Total: 30) EGR 1104

ENME466 **Lean Six Sigma**

(Perm req)

Credits: 3

Grading Method: Regular, Pass-Fail

Corequisite: ENME392; or students who have taken courses with comparable content may contact the department. Restriction: Permission of ENGR-Mechanical Engineering department.

This course intends to provide in-depth understanding of Lean Six Sigma and its Define - Mearsure - Analyze - Improve - Control (DMAIC) Breakthrough Improvement Strategy. The emphasis is placed on the DMAIC process which is reinforced via application of semester long corporate projects and case study analysis.

0101	David Bigio TuTh 3:30pm - 4:45pm	Seats (Total: 40) EGR 0135

ENME470 **Finite Element Analysis**

(Perm req)

Credits: 3

Grading Method: Regular, Pass-Fail, Audit

Restriction: Senior standing; and permission of ENGR-Mechanical Engineering department.

Basic concepts of the theory of the finite element method. Applications in solid mechanics and heat transfer.

0101	Peter Chung MW 12:00pm - 1:15pm	Seats (Total: 42) KEB 2111

ENME472 **Integrated Product and Process Development**

(Perm req)

Credits: 3

Grading Method: Regular, Pass-Fail, Audit

CORE: CS

Prerequisite: ENME331, ENME361, ENME351, and ENME371; and must have completed or be concurrently enrolled in ENME332. Restriction: Permission of the Department of Mechanical Engineering.

Integration of product development with the development process. Design strategies. Product architecture. Design for manufacturing. Selection of materials. Design for assembly.

0101	David Bigio Tu 12:00pm - 1:50pm TuTh 11:00am - 11:50am	Seats (Total: 36) EGL 0101 ARC 0204	 Discussion
0201	Aris Cleanthous W 12:00pm - 1:50pm TuTh 11:00am - 11:50am	Seats (Total: 36) EGL 0101 ARC 0204	 Discussion
0301	Aris Cleanthous Th 12:00pm - 1:50pm TuTh 11:00am - 11:50am	Seats (Total: 36) EGL 0101 ARC 0204	 Discussion
0401	Vincent Nguyen F 11:00am - 12:50pm TuTh 11:00am - 11:50am	Seats (Total: 36) EGL 0101 ARC 0204	 Discussion
0601	Gary Pertmer W 6:00pm - 7:50pm TuTh 11:00am - 11:50am	Seats (Total: 36) EGL 0101 ARC 0204	 Discussion
0701	Elisabeth Smela Th 2:00pm - 3:50pm TuTh 11:00am - 11:50am	Seats (Total: 30) EGL 0105 ARC 0204	 Discussion

ENME482 **Impact for Social Change**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Prerequisite: Academic Standing: Students with sufficient credit for junior standing and permission of the Mechanical Engineering Department. Restriction: Permission Required.

The purpose of this course is to encourage and inspire students to critically analyze possible solutions to mitigate social inequalities among large groups of people who have not benefited from the technological revolution. To do so, we will not only use our technical know-how, but how to work with nonprofit organizations that are inspired by philanthropy and public policy. This course is not just about coming up with an idea, or designing a prototype, but more importantly, about sustainably deploying it on large scale. It fosters an entrepreneurial approach, as students address challenges and propose models that are relevant to a larger swath of humanity.

0101	Sami Ainane, Davinder Anand	Seats (Total: 35)
	F 11:00am - 1:40pm	Location: TBA
	Class will be held off campus at 7878b Diamondback Drive, which is behind The Hotel on Route 1.	

ENME483 **Physics of Turbulent Flow**

(Perm req)

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Prerequisite: ENME331. Restriction: Permission of ENGR-Mechanical Engineering department. Jointly offered with ENME656. Credit only gran ted for: ENME483 or ENME656.

Specific problems of turbulent flow including automobile and truck aerodynamics and canonical flows including pipes, jets and boundary layers that are measured and simulated to gain basic understanding of turbulence. A goal of the course is to impart the necessary background for students to be able to critically assess and most effectively employ the turbulent flow prediction codes (e.g. Fluent) that are a mainstay of how turbulence is analyzed in modern industries.

0101	Johan Larsson	Seats (Total: 15)
	TuTh 11:00am - 12:15pm	JMP 1109

ENME488 **Special Problems**

(Perm req)

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Advanced problems in mechanical engineering with special emphasis on mathematical and experimental methods.

Limited to mechanical engineering seniors.

Contact department for information to register for this course.

ENME489 **Special Topics in Mechanical Engineering**

(Perm req)

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Selected topics of current importance in mechanical engineering.

Contact department for information to register for this course.

ENME489D **Special Topics in Mechanical Engineering; Flight Dynamics and Simulation**

(Perm req)

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Selected topics of current importance in mechanical engineering.

Prerequisite: ENME489F.

0201	David Findlay	Seats (Total: 6)
	Tu 3:30pm - 6:10pm	JMP 2120

ENME489E **Special Topics in Mechanical Engineering; Design for Sustainability**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Selected topics of current importance in mechanical engineering.

0101	Senthil Arul	Seats (Total: 45)
	TuTh 5:00pm - 6:15pm	EGR 0108

ENME489J **Special Topics in Mechanical Engineering; Fatigue Life Prediction**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Selected topics of current importance in mechanical engineering.

Contact department for information to register for this course.

ENME489L **Special Topics in Mechanical Engineering; Bio-Inspired Robotics**

(Perm req)

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Selected topics of current importance in mechanical engineering.

Pre- or corequisite: ENME351 and permission of department.

0101	Hugh Bruck	Seats (Total: 34)
	MW 3:30pm - 4:45pm	EGR 2154

ENME489Q **Special Topics in Mechanical Engineering; Managing for Innovation and Quality**

(Perm req)

Credits: 3

Grading Method: Regular, Pass-Fail, Audit

Selected topics of current importance in mechanical engineering.

Department permission required.

0101	Senthil Arul	Seats (Total: 30)
	M 5:00pm - 7:40pm	AJC 2134

ENME489T **Special Topics in Mechanical Engineering; Nuclear Reactor Design**

(Perm req)

Credits: 3

Grading Method: Regular, Pass-Fail, Audit

Selected topics of current importance in mechanical engineering.

0101	Robert Sanders	Seats (Total: 15)
	MW 11:00am - 12:15pm	EGR 1104

ENME489Y **Special Topics in Mechanical Engineering; Remote Sensing**

(Perm req)

Credits: 3

Grading Method: Regular, Pass-Fail, Audit

Selected topics of current importance in mechanical engineering.

Prerequisite: ENME351.

0101	Steven Mitchell	Seats (Total: 65)
	TuTh 9:30am - 10:45am	TYD 2109

ENME600 **Engineering Design Methods**

Credits: 3

Grading Method: Regular, Audit, Sat-Fail

An introductory graduate level course in critical thinking about formal methods for design in Mechanical Engineering. Course participants gain background on these methods and the creative potential each offers to designers. Participants will formulate, present, and discuss their own opinions on the value and appropriate use of design materials for mechanical engineering.

0101	Linda Schmidt	Seats (Total: 25)
	W 4:00pm - 6:40pm	JMP 2222

ER01	Linda Schmidt Class time/details on ELMs	Seats (Total: 7) ONLINE
RE01	Linda Schmidt Class time/details on ELMs	Seats (Total: 5) ONLINE
SG01	Linda Schmidt W 4:00pm - 6:40pm	Seats (Total: 2) Location: TBA
SM01	Linda Schmidt W 4:00pm - 6:40pm	Seats (Total: 2) Location: TBA

ENME607 **Engineering Decision Making and Risk Management**

Credits: 3 Grading Method: Regular, Audit, Sat-Fail

Cross-listed with ENRE671. Credit only granted for: ENME808X, ENRE671 or ENME607. Formerly: ENME 808X.

Individual decision-making, group decisionmaking, and organizations of decision-makers in the context of engineering design, project management, and other functions. Techniques for making better decisions, for understanding how decisions are related to each other, and for managing risk.

Cross-listed with ENRE671. Credit granted for ENME607 or ENRE671.

0101	Jeffrey Herrmann TuTh 2:00pm - 3:15pm	Seats (Total: 30) JMP 2222
ER01	Jeffrey Herrmann Class time/details on ELMs	Seats (Total: 15) ONLINE
RE01	Jeffrey Herrmann Class time/details on ELMs	Seats (Total: 10) ONLINE

ENME625 **Multidisciplinary Optimization**

Credits: 3 Grading Method: Regular, Audit, Sat-Fail

Overview of single- and multi-level design optimization concepts and techniques with emphasis on multidisciplinary engineering design problems. Topics include single and multilevel optimality conditions, hierarchic and nonhierarchic modes and multilevel post optimality sensitivity analysis. Students are expected to work on a semester-long project.

0101	Shapour Azarm Tu 4:00pm - 6:40pm	Seats (Total: 30) EGR 3111

ENME633 **Molecular Thermodynamics**

Credits: 3 Grading Method: Regular, Audit, Sat-Fail

An examination of the interactions between molecules, which govern thermodynamics relevant to engineering, will be conducted. We will investigate both classical and statistical approaches to thermodynamics for understanding topics such as phase change, wetting of surfaces, chemical reactions, adsorption, and electrochemical processes. Statistical approaches and molecular simulation tools will be studied to understand how molecular analysis can be translated to macroscopic phenomena.

0101	Bao Yang TuTh 2:00pm - 3:15pm	Seats (Total: 25) CHE 2145

ENME635 **Energy Systems Analysis**

Credits: 3 Grading Method: Regular, Audit, Sat-Fail

Credit only granted for: ENPM635 or ENME635.

Rankine cycles with nonazeotropic working fluid mixtures, two-, multi- and variable-stage absorption cycles and vapor compression cycles with solution circuits. Power generation cycles with working fluid mixtures. Development of rules for finding all possible cycles suiting a given application or the selection of the best alternatives.

0101	K Radermacher Tu 4:00pm - 6:40pm	Seats (Total: 25) JMP 2222
ME01	K Radermacher Class time/details on ELMs	Seats (Total: 15) ONLINE

ENME656 **Physics of Turbulent Flow**

Credits: 3 Grading Method: Regular, Audit, Sat-Fail

Prerequisite: ENME640; or students who have taken courses with comparable content may contact the department; or permission of instructor.

Definition of turbulence and its physical manifestations. Statistical methods and the transport equations for turbulence quantities. Laboratory measurement and computer simulation methods. Isotropic turbulence. Physics of turbulent shear flows.

0101	Johan Larsson TuTh 11:00am - 12:15pm	Seats (Total: 17) JMP 1109

ENME664 **Dynamics**

Credits: 3 Grading Method: Regular, Audit, Sat-Fail

Prerequisite: ENES221; or students who have taken courses with comparable content may contact the department; or permission of instructor.

Kinematics in plane and space; Dynamics of particle, system of particles, and rigid bodies. Holonomic and non-holonomic constraints. Newton's equations, D'Alembert's principle, Hamilton's principle, and equations of Lagrange. Impact and collisions. Stability of equilibria.

0101	B Balachandran TuTh 3:30pm - 4:45pm	Seats (Total: 25) EGR 3114

ENME672 **Composite Materials**

Credits: 3 Grading Method: Regular, Audit, Sat-Fail

Micromechanics of advanced composites with passive and active reinforcements, mathematical models and engineering implications, effective properties and damage mechanics, recent advances in "adaptive" or "smart" composites.

0101	Abhijit Dasgupta MW 12:30pm - 1:45pm	Seats (Total: 25) JMP 2121
DE01	Abhijit Dasgupta Class time/details on ELMs	Seats (Total: 15) ONLINE

ENME674 **Finite Element Methods**

Credits: 3 Grading Method: Regular, Audit, Sat-Fail

Restriction: Must be in one of the following programs (ENGR: MS/PhDMechanical Engineering (Master's); ENGR: MS/PhDMechanical Engineering (Doctoral)) ; or permission of ENGR-Mechanical Engineering department. Credit only granted for: ENME 674, ENAE652, ENPM652 or ENPM808F.

Theory and application of finite element methods for mechanical engineering problems such as stress analysis. Basic development of the method for solving the types of governing partial differential equations that are the foundations for many engineering and physical sciences. The emphasis is on balancing the theoretical/mathematical background with a computable implementation to reach applications. Some code writing and debugging will be involved. This class is suited for graduate students or high-achieving undergraduates in engineering, mathematics, or the physical sciences. A very basic knowledge of matrix-vector calculations and multivariable calculus are required. Some exposure to partial differential equations and experience with Matlab or a compiled language will be helpful but are not required.

0101	Peter Chung MW 2:00pm - 3:15pm	Seats (Total: 25) JMP 2216
DE01	Peter Chung Class time/details on ELMs	Seats (Total: 5) ONLINE

ENME695 **Design for Reliability**

Credits: 3 Grading Method: Regular, Audit, Sat-Fail

Reliability is the ability of a product or system to perform as intended (i.e., without failure and within specified performance limits) for a specified time, in its life-cycle conditions. Knowledge of reliability concepts and principles, as well as risk assessment, mitigation and management strategies prepares engineers to contribute effectively to product development and life cycle management. This course teaches the fundamental knowledge and skills in reliability as it pertains to the design, manufacture, and use of electrical, mechanical, and electro-mechanical products. Topics cover the suitability of the supply chain members to contribute towards development, manufacturing, distribution and support of reliable products; efficient and cost-effective design and manufacture of reliable products; process capability and process control; derating, uprating, FMMEA, reliability prediction and reliability allocation; how to plan and implement product testing to assess reliability; how to analyze degradation, failure, and return data to estimate fundamental reliability parameters; root cause analysis; and reliability issues associated with warranties, regulatory requirements, and liabilities.

0101	Diganta Das, Michael Pecht M 9:30am - 12:10pm	Seats (Total: 29) JMP 2217
ER01	Michael Pecht, Diganta Das Class time/details on ELMs	Seats (Total: 20) ONLINE
RE01	Michael Pecht, Diganta Das Class time/details on ELMs	Seats (Total: 20) ONLINE

ENME712 **Measurement, Instrumentation and Data Analysis for Thermo-Fluid Processes**

Credits: 3

Grading Method: Regular, Audit, Sat-Fail

This course is designed to offer systemic coverage of the methodologies for measurement and data analysis of thermal and fluid processes at the graduate level. The course materials will cover three broad categories: (1) Fundamentals of thermal and fluid processes in single phase and multi phase flows as relates to this course; Measurement and Instrumentation techniques for measurement of basic quantities such as pressure, temperature, flow rate, heat flux, etc., and (3) Experimental Design and Planning, sources of errors in measurements, and uncertainty analysis.

0101	Kenneth Kiger MW 11:00am - 12:15pm	Seats (Total: 25) MTH 0106

ENME722 **Equilibrium Modeling in Engineering**

Credits: 3

Grading Method: Regular, Audit, Sat-Fail

Credit only granted for: ENCE722 or ENME722.

Provide motivation and introduction to equilibrium models involving economics and engineering. We will concentrate on models involving markets (Nash-Cournot, etc.), those wherein the activities are spatially diverse, those involving energy activities or traffic flow, as well as selected other examples in mechanical engineering. Areas that will be covered include:Review of relevant optimization theory, presentation of the mixed complementarity problem (MCP) and variational inequality problem (VIP) formats to solve equilibrium problems as well as introduction to existence and uniqueness results, review of relevant game theory notions, presentation of specific models for engineering-economic applications, presentations for algorithms to solve these equilibrium problems.

0101	Steven Gabriel W 8:30am - 11:00am	Seats (Total: 17) JMP 2120
DE01	Steven Gabriel Class time/details on ELMs	Seats (Total: 10) ONLINE

ENME742 **Urban Microclimate and Energy**

Credits: 3

Grading Method: Regular, Audit, Sat-Fail

Jointly offered with ENME424. Credit only granted for: ENME808I, ENME42 4 or ENME742. Formerly: ENME808I.

Examines urban microclimate from the perspective of transient heat and mass transfer using building energy simulations for building clusters. The focus is on understandingbuilding energy consumption and environmental impacts from the individual building scale (~100) to a neighborhood scale (~103). Emerging morphological properties of building clustersmodulate transient convective and radiative heat transfer resulting in different localmicroclimatic conditions. At the neighborhood scale, these conditions are analyzed using heatand mass transfer simulations in building clusters to provide boundary conditions for transient building energy simulations. At the individual building scale, besides the energy consumption,this course examines connection between indoor and outdoor environments.

0101	Jelena Srebric TuTh 12:30pm - 1:45pm	Seats (Total: 3) ESJ 1309

ENME744 **Additive Manufacturing**

Credits: 3 Grading Method: Regular, Audit, Sat-Fail

Prerequisite: ENME272 and ENME331; or students who have taken courses with comparable content may contact the department. Jointly offered wit h ENME416. Credit only granted for: ENME 416 OR ENME 744.

Develop a comprehensive understanding of fundamental additive manufacturing-alternatively, "three-dimensional (3D) printing-approaches, including extrusion-based deposition, stereolithography, powder bed-based melting, and inkjet-based deposition. Cultivate a "design-for-additive manufacturing" skill set for combining computer-aided design (CAD) and computer-aided manufacturing (CAM) methodologies to produce successful 3D prints. Fabricate 3D mechanical objects using a variety of 3D printing technologies on campus. Execute a design project that demonstrates how additive manufacturing technologies can overcome critical limitations of traditional manufacturing processes.

0101	Ryan Sochol MWF 1:00pm - 1:50pm	Seats (Total: 20) JMP 2222
DE01	Ryan Sochol Class time/details on ELMs	Seats (Total: 20) ONLINE

ENME799 **Master's Thesis Research**

(Perm req)

Credits: 1-6 Grading Method: Sat-Fail

Contact department for information to register for this course.

ENME808 **Advanced Topics in Mechanical Engineering**

Credits: 3 Grading Method: Regular, Audit, Sat-Fail

Contact department for information to register for this course.

ENME808E **Advanced Topics in Mechanical Engineering; Machine Learning: Theory and Applications**

Credits: 3 Grading Method: Regular, Audit, Sat-Fail

0101	Nikhil Chopra TuTh 11:00am - 12:15pm	Seats (Total: 20) EGR 2154

ENME808I **Advanced Topics in Mechanical Engineering; Interfacial Fluid Mechanics**

Credits: 3 Grading Method: Regular, Audit, Sat-Fail

0101	Siddhartha Das MW 5:00pm - 6:15pm	Seats (Total: 20) EGR 3102

ENME809A **Special Topics; Steady State and Dynamic Modeling of Energy Systems**

Credits: 3 Grading Method: Regular, Audit, Sat-Fail

N/A

0101	Jiazhen Ling W 12:00pm - 2:40pm	Seats (Total: 20) JMP 2217
ME01	Jiazhen Ling Class time/details on ELMs	Seats (Total: 15) ONLINE

ENME898 **Pre-Candidacy Research**

Credits: 1-8 Grading Method: Regular, Sat-Fail

Contact department for information to register for this course.

ENME899 **Doctoral Dissertation Research**

(Perm req)

Credits: 6 Grading Method: Sat-Fail

Contact department for information to register for this course.

ENPM Engineering, Professional Masters Spring 2020

ENPM601 **Analog and Digital Communication Systems**

(Perm req)

Credits: 3

Grading Method: Regular, Audit, Sat-Fail

Prerequisite: ENPM600; or students who have taken courses with comparable content may contact the department. And permission of ENGR-CDL-Office of Advanced Engineering Education.

Analog modulation methods including AM, DSBSC-AM, SSB, and QAM; effects of noise in analog modulation systems. Digital communication methods for the infinite bandwidth additive white Gaussian noise channel: PAM, QAM, PSK, FSK modulation; optimum receivers using the MAP principle; phase-locked loops; error probabilities. Digital communication over bandlimited channels: intersymbol interference and Nyquist's criterion, adaptive equalizers, symbol clock and carrier recovery systems, trellis coding. Spread spectrum systems: direct sequence modulation and frequency hopping.

0101	Sasan Haghani Tu 7:00pm - 9:40pm	Seats (Total: 25) JMP 2222
SG01	Sasan Haghani Tu 7:00pm - 9:40pm	Seats (Total: 5) Location: TBA
SM01	Sasan Haghani Tu 7:00pm - 9:40pm	Seats (Total: 5) Location: TBA

ENPM602 **Data Networks**

Credits: 3

Grading Method: Regular, Audit, Sat-Fail

Prerequisite: ENEE324; or students who have taken courses with comparable content may contact the department.

Principles of network design, circuit switching and packet switching, OSI Reference Model; parity and cyclic redundancy check codes; retransmission request protocols; Markov chains and queuing models for delay analysis; multiaccess communication, local area networks, Ethernet and Token Ring standards; routing, flow control, internetworking; higher layer functions and protocols. Software tools for network simulation and performance analysis will be used.

0101	C Ravishankar M 7:00pm - 9:40pm	Seats (Total: 17) JMP 2120
SG01	C Ravishankar M 7:00pm - 9:40pm	Seats (Total: 5) Location: TBA
SM01	C Ravishankar M 7:00pm - 9:40pm	Seats (Total: 5) Location: TBA

ENPM607 **Computer System Design and Architecture**

Credits: 3 Grading Method: Regular, Audit, Sat-Fail

Prerequisite: ENEE446; or students who have taken courses with comparable content may contact the department.

Principles of computer design and cost/performance factors; instruction set design and implementation, RISC vs. CISC instruction sets; control unit and pipeline design; floating-point arithmetic; memory hierarchy designs, caches, memory interleaving, virtual memory; I/O device interconnections to CPUs and main memory. Additional topics include parallel system designs, SIMD, MIMD, SPMD; interconnection networks for processors and memories; optimization of pipeline operations; superscalar architectures, power management techniques.

0101	Manoj Franklin Tu 4:00pm - 6:40pm	Seats (Total: 25) JMP 2216
SG01	Manoj Franklin Tu 4:00pm - 6:40pm	Seats (Total: 5) Location: TBA
SM01	Manoj Franklin Tu 4:00pm - 6:40pm	Seats (Total: 5) Location: TBA

ENPM611 **Software Engineering**

Credits: 3 Grading Method: Regular, Audit, Sat-Fail

Prerequisite: Competency in one programming language; and must have completed an undergraduate software engineering course.

Software engineering concepts, methods, and practices important to both the theorist and the practitioner will be covered. The entire range of responsibilities expected of a software engineer are presented. The fundamental areas of requirements development, software design, programming languages, and testing are covered extensively. Sessions on supporting areas such as systems engineering, project management, and software estimation are also included.

DE01	Christopher Ackermann Class time/details on ELMs	Seats (Total: 30) ONLINE

ENPM612 **System and Software Requirements**

(Perm req)

Credits: 3 Grading Method: Regular, Audit, Sat-Fail

Prerequisite: ENPM611. Restriction: Permission of ENGR-CDL-Office of Advanced Engineering Education.

Focus will be placed on the theoretical and practical aspects of requirements development. Students will recognize the place of requirements, how to work with users, requirements methods and techniques, the various requirements types, how to set requirements development schedules, requirements evolution, how to model and prototype requirements, how to evaluate and manage risk in requirements, techniques to test requirements, how to manage the requirements process, and how to write an effective requirements document.

0101	Mikael Lindvall Tu 7:00pm - 9:40pm	Seats (Total: 35) JMP 2116
DE01	Mikael Lindvall Class time/details on ELMs	Seats (Total: 10) ONLINE
SG01	Mikael Lindvall Tu 7:00pm - 9:40pm	Seats (Total: 5) Location: TBA
SM01	Mikael Lindvall Tu 7:00pm - 9:40pm	Seats (Total: 5) Location: TBA

ENPM614 **Software Testing & Maintenence**

(Perm req)

Credits: 3 Grading Method: Regular, Audit, Sat-Fail

Prerequisite: ENPM611. Restriction: Permission of ENGR-CDL-Office of Advanced Engineering Education.

Aspects of software development after coding is completed will be covered. Students will understand the various levels of testing, techniques for creating test data, how to manage test cases and scenarios, testing strategies and methods, testing batch, client/server, real-time, and Internet systems, and the development of an effective test plan. Software maintenance will include the creation of easily maintained software; preventive maintenance, corrective maintenance, and enhancements; configuration management practices; and assuring quality in software manintenance.

0101	Mikael Lindvall, Anumeet Nepaul Th 7:00pm - 9:40pm	Seats (Total: 35) JMP 2222
DE01	Mikael Lindvall, Anumeet Nepaul Class time/details on ELMs	Seats (Total: 10) ONLINE

SG01	Anumeet Nepaul, Mikael Lindvall Th 7:00pm - 9:40pm	Seats (Total: 5) Location: TBA
SM01	Anumeet Nepaul, Mikael Lindvall Th 7:00pm - 9:40pm	Seats (Total: 5) Location: TBA

ENPM615 **Embedded Systems**

Credits: 3 Grading Method: Regular, Audit, Sat-Fail

Prerequisite: Must have completed undergraduate courses in logic design, computer architecture, and programming.

Introduction to embedded systems design and evaluation: requirements, specification, architecture, hardware and software components, integration and performance evaluation. Topics include instruction sets, CPU, embedded computing platform, program design and analysis, operating systems, hardware accelators, multiprocessors, networks, and system analysis. Real-life embedded systems design examples will be used throughput the course to illustrate these concepts.

0101	Gang Qu M 4:00pm - 6:40pm	Seats (Total: 30) JMP 2116
SG01	Gang Qu M 4:00pm - 6:40pm	Seats (Total: 5) Location: TBA
SM01	Gang Qu M 4:00pm - 6:40pm	Seats (Total: 5) Location: TBA

ENPM625 **Heating, Ventilation and Air Conditioning of Buildings**

Credits: 3 Grading Method: Regular, Audit, Sat-Fail

Low pressure side of buildings heating and cooling systems. Thermodynamics, heat transfer and digital control principles applied to field problems. Quantitative analyses stressed. Topics include psychometrics, thermal loads, incompressible flow in ducts and pipes, heat exchangers, cooling towers, PID control systems.

0101	Karim Amrane M 4:00pm - 6:40pm	Seats (Total: 25) JMP 2222
DE01	Karim Amrane Class time/details on ELMs	Seats (Total: 10) ONLINE

SG01	Karim Amrane M 4:00pm - 6:40pm	Seats (Total: 5) Location: TBA
SM01	Karim Amrane M 4:00pm - 6:40pm	Seats (Total: 5) Location: TBA

ENPM627 **Environmental Risk Analysis**

Credits: 3 Grading Method: Regular, Audit, Sat-Fail

The fundamental methodology for analyzing environmental risk is described with examples for selected applications. Key elements of the environmental risk methodology include: (1) source term and release characterization, (2) migration of contaminants in various media, (3) exposure assessment, (4) dose-response evaluation, (5) risk characterization, and (6) risk management. Also included will be an introduction to uncertainty analysis and environmental laws and regulations. It is intended to provide students with the basic skills and knowledge needed to manage, evaluate, or perform environmental risk assessments and risk analyses.

0101	Karen Pinkston, Alavanja Ridge M 7:00pm - 9:40pm	Seats (Total: 25) JMP 2216
ME01	Karen Pinkston, Alavanja Ridge Class time/details on ELMs	Seats (Total: 20) ONLINE
SG01	Karen Pinkston, Alavanja Ridge M 7:00pm - 9:40pm	Seats (Total: 5) Location: TBA
SM01	Karen Pinkston, Alavanja Ridge M 7:00pm - 9:40pm	Seats (Total: 5) Location: TBA

ENPM650 **Solar Thermal Energy Systems**

Credits: 3 Grading Method: Regular, Audit, Sat-Fail

Covers a review of related fundamentals, including limitations imposed by thermodynamics, solar spectral characteristics, measurement, and analytical models to predict solar irradiance with respect to time, location and orientation. The course will then examine the characteristics of various components in solar thermal systems with particular emphasis on flat plate and concentrating collectors, fixed and tracking collector systems, heat exchangers and thermal storage to understand how they work and how their performance is influenced by their design. The course will then lead to an examination of systems and system performance, including system design, predicted energy savings and related economics. The course will introduce low temperature applications such as solar hot water, space heating and water distillation, as well as concentrating solar energy for solar thermo-chemical processes to produce hydrogen and solar power generation systems. A project of importance to the development of Solar Thermal Power Systems will be assigned.

0101	Brian Valentine Tu 7:00pm - 9:40pm	Seats (Total: 20) JMP 2216
ME01	Brian Valentine Class time/details on ELMs	Seats (Total: 20) ONLINE
SG01	Brian Valentine Tu 7:00pm - 9:40pm	Seats (Total: 5) Location: TBA
SM01	Brian Valentine Tu 7:00pm - 9:40pm	Seats (Total: 5) Location: TBA

ENPM656 **Energy Conversion II -- Mobile Power**

Credits: 3 Grading Method: Regular, Audit, Sat-Fail

Prerequisite: Must have completed undergraduate courses in thermodynamics, heat transfer, and fluid mechanics; or ENPM672.

Presents the scientific and engineering basis for design, manufacture, and operation of thermal conversion technologies utilized for mobility power generation. The interface between fuel combustion chemistry and generated power are addressed. The practical aspects of design and operation of various alternatives for power are compared. The impact of choices with regard to power and fuel alternatives as well as air pollution potential are also considered.

0101	Jim Cowart W 7:00pm - 9:40pm	Seats (Total: 20) JMP 2216
ME01	Jim Cowart Class time/details on ELMs	Seats (Total: 20) ONLINE

SG01	Jim Cowart W 7:00pm - 9:40pm	Seats (Total: 5) Location: TBA
SM01	Jim Cowart W 7:00pm - 9:40pm	Seats (Total: 5) Location: TBA

ENPM661 **Planning for Autonomous Robots**

Credits: 3 Grading Method: Regular, Audit, Sat-Fail

Credit only granted for: ENPM661 or ENPM808C. Formerly: ENPM808C.

Planning is a fundamental capability needed to realize autonomous robots. Planning in the context of autonomous robots is carried out at multiple different levels. At the top level, task planning is performed to identify and sequence the tasks needed to meet mission requirements. At the next level, planning is performed to determine a sequence of motion goals that satisfy individual task goals and constraints. Finally, at the lowest level, trajectory planning is performed to determine actuator actions to realize the motion goals. Different algorithms are used to achieve planning at different levels. This graduate course will introduce planning techniques for realizing autonomous robots. In addition to covering traditional motion planning techniques, this course will emphasize the role of physics in the planning process. This course will also discuss how the planning component is integrated with control component. Mobile robots will be used as examples to illustrate the concepts during this course. However, techniques introduced in the course will be equally applicable to robot manipulators.

0101	Reza Monfaredi Th 4:00pm - 6:40pm	Seats (Total: 65) JMP 3201
0201	Reza Monfaredi Th 7:00pm - 9:40pm	Seats (Total: 38) JMP 2121
DE01	Reza Monfaredi Class time/details on ELMs	Seats (Total: 10) ONLINE
FL01	Reza Monfaredi Contact instructor or department for details. *This section is for NAVAIR Cohort students located outside of Maryland ONLY*	Seats (Total: 5)
SG01	Reza Monfaredi Th 4:00pm - 6:40pm	Seats (Total: 5) Location: TBA
SM01	Reza Monfaredi Th 4:00pm - 6:40pm	Seats (Total: 5) Location: TBA

ENPM671 **Advanced Mechanics of Materials**

Credits: 3

Grading Method: Regular, Audit, Sat-Fail

Formulate and quantitatively state the mechanical/physical responses of structural components and configurations subjected to loads, temperature, pre-strains etc. The two methods of anlysis employed are the mechanics of materials approach and the theory of elasticity approach. Analysis and design of components of structural/machine systems as experienced in aeronautical, civil, mechanical and nuclear engineering.

0101	Gilad Sharon M 7:00pm - 9:40pm	Seats (Total: 25) JMP 2217
SG01	Gilad Sharon M 7:00pm - 9:40pm	Seats (Total: 5) Location: TBA
SM01	Gilad Sharon M 7:00pm - 9:40pm	Seats (Total: 5) Location: TBA

ENPM672 **Fundamentals for Thermal Systems**

(Perm req)

Credits: 3

Grading Method: Regular, Audit, Sat-Fail

Prerequisite: Undergraduate engineering, physics or chemistry degree. Restriction: Permission of ENGR-Office of Advanced Engineering Education.

Included in this course is an introduction to thermodynamics, fluid mechanics and heat transfer. Emphasis is on gaining an understanding of the physical concepts through the solving of numerical problems associated with simple thermal fluid processes and cycles. Both ideal gases and multiphase fluids will be considered as the working fluids.

0101	Mohammad Ali Th 7:00pm - 9:40pm	Seats (Total: 17) JMP 2217
ME01	Mohammad Ali Class time/details on ELMs	Seats (Total: 10) ONLINE
SG01	Mohammad Ali Th 7:00pm - 9:40pm	Seats (Total: 5) Location: TBA
SM01	Mohammad Ali Th 7:00pm - 9:40pm	Seats (Total: 5) Location: TBA

ENPM673 **Perception for Autonomous Robots**

Credits: 3 Grading Method: Regular, Audit, Sat-Fail

Credit only granted for: ENPM673 or ENPM808T. Formerly: ENPM808T.

Image Processing and Computer Vision techniques for Mobile Robots is taught. Three topics are covered: Image Processing (Image Enhancement, Filtering, Advanced Edge and Texture), 3D Vision (3D Geometry from Multiple view geometry, Motion Processing and Stereo) and an Introduction to Image Segmentation and Object Recognition. Students are introduced to a number of existing software toolboxes from Vision and Robotics, and will implement a number of smaller projects in Matlab.

0101	Mohammed Charifa Tu 7:00pm - 9:40pm	Seats (Total: 52) JMP 2121
0201	Mohammed Charifa Tu 4:00pm - 6:40pm	Seats (Total: 52) JMP 3201
DE01	Mohammed Charifa Class time/details on ELMs	Seats (Total: 10) ONLINE
FL01	Mohammed Charifa Contact instructor or department for details. *This section is for NAVAIR Cohort students located outside of Maryland ONLY*	Seats (Total: 5)
SG01	Mohammed Charifa Tu 7:00pm - 9:40pm	Seats (Total: 5) Location: TBA
SM01	Mohammed Charifa Tu 7:00pm - 9:40pm	Seats (Total: 5) Location: TBA

ENPM685 **Security Tools for Information Security**

Credits: 3 Grading Method: Regular, Audit, Sat-Fail

Prerequisite: Familiarity with Linux and Windows operating systems, as well as TCP/IP and basic networking concepts. Credit only granted for: ENPM808D or ENPM685. Formerly: ENPM808D.

Students will perform host- and network-based security tasks relating to security, investigation, compliance verification and auditing using a wide selection of commonly used tools on both Windows and Linux platforms, with emphasis on open source tools.

0101	Kevin Shivers M 7:00pm - 9:40pm	Seats (Total: 46) JMP 2116
0201	Kevin Shivers Th 4:00pm - 6:40pm	Seats (Total: 52) JMP 2121
CY01	Kevin Shivers Class time/details on ELMs	Seats (Total: 40) ONLINE
SG01	Kevin Shivers Contact instructor or department for details.	Seats (Total: 5)
SM01	Kevin Shivers Contact instructor or department for details.	Seats (Total: 5)

ENPM686 **Information Assurance**

Credits: 3 Grading Method: Regular, Audit, Sat-Fail

Credit only granted for: ENPM808E or ENPM686. Formerly: ENPM808E.

The first half of lectures provides an overview of cybersecurity. One third of these lectures focuses on the fundamentals of cybersecurity like authentication, access control, and security models. The second third focuses on the practice of cybersecurity using Unix and Windows NT as case studies. The last third is dedicated to security in distributed systems including network security, and World Wide Web security. The second half of the lectures focuses on the information assurance process. First, information assets are enumerated and classified. Second, the main vulnerabilities and threats are identified. Third, a risk assessment is conducted by considering the probability and impact of the undesired events. Finally, a risk management plan is developed that includes countermeasures involving mitigating, eliminating, accepting, or transferring the risks, and considers prevention, detection, and response.

0101	Edward Condon M 4:00pm - 6:40pm	Seats (Total: 70) JMP 3201
CY01	Edward Condon Class time/details on ELMs	Seats (Total: 20) ONLINE
SG01	Edward Condon M 4:00pm - 6:40pm	Seats (Total: 5) Location: TBA
SM01	Edward Condon M 4:00pm - 6:40pm	Seats (Total: 5) Location: TBA

ENPM690 **Robot Learning**

Credits: 3 Grading Method: Regular, Audit, Sat-Fail

Credit only granted for: ENPM808F or ENPM690. Formerly: ENPM808F.

Machine learning may be used to greatly expand the capabilities of robotic systems, and has been applied to a variety of robotic system functions including planning, control, and perception. Adaptation and learning are particularly important for development of autonomous robotic systems that must operate in dynamic or uncertain environments. Ultimately we would like for the robots to expand their knowledge and improve their own performance through learning while operating in the environment (on-line and/or lifelong learning). Robot Learning covers the application of learning techniques including Reinforcement Learning, Learning from Demonstration, and Robot Shaping that may be used with a variety of machine learning paradigms for which data is used to generate (through induction) models that are then used by the robot to perform tasks. A wide variety of paradigms are available to generate models (e.g., CMAC, KNN, MLP, lazy learning, LWR, RBF, deep networks). These learning techniques and paradigms are then combined with traditional robotic control approaches (e.g., motor schema, behavior-based, direct and inverse methods) to create controllers to control the robots while operating in real-world environments. This graduate course will explore the application of machine learning techniques, paradigms, and control design to robotic systems, focusing primarily on key useful representations and model building techniques for application in non-stationary robotic systems.

0101	Donald Sofge M 7:00pm - 9:40pm	Seats (Total: 52) JMP 2121
DE01	Donald Sofge Class time/details on ELMs	Seats (Total: 15) ONLINE
FL01	Donald Sofge M 7:00pm - 9:40pm	Seats (Total: 5) Location: TBA
SG01	Donald Sofge M 7:00pm - 9:40pm	Seats (Total: 5) Location: TBA
SM01	Donald Sofge M 7:00pm - 9:40pm	Seats (Total: 5) Location: TBA

ENPM691 **Hacking of C programs and Unix Binaries**

(Perm req)

Credits: 3 Grading Method: Regular, Audit, Sat-Fail

Prerequisite: ENEE150; or students who have taken courses with comparable content may contact the department.

Teaches the fundamentals of secure programming in C. An in depth discussion on various security vulnerabilities (e.g., buffer overflows) in C applications will be taught with hands-on demo of concepts during the class. Students will learn how a C program runs "under-the-hood". The course will teach nitty-gritty of C programs by analyzing at the assembly level. The course discusses best practices (e.g., coding standards) and design principles for secure programming so that security can be built-in during design time. In addition to assignments, students are required to present papers related to this course.

0101	Dharmalingam Ganesan Th 7:00pm - 9:40pm	Seats (Total: 46) JMP 2116
CY01	Dharmalingam Ganesan Class time/details on ELMs	Seats (Total: 20) ONLINE
SG01	Dharmalingam Ganesan Th 7:00pm - 9:40pm	Seats (Total: 5) Location: TBA
SM01	Dharmalingam Ganesan Th 7:00pm - 9:40pm	Seats (Total: 5) Location: TBA

ENPM692 **Manufacturing and Automation**

Credits: 3 Grading Method: Regular, Audit, Sat-Fail

Credit only granted for: ENPM808P or ENPM692. Formerly: ENPM808P.

Covers automation and product realization, digital factories, and disruptive manufacturing technologies. The role of additive manufacturing, sustainability, and performance simulation in selected manufacturing scenarios will be explored alongside automation strategies for rapid product development.

0101	Mahesh Mani Tu 7:00pm - 9:40pm	Seats (Total: 50) JMP 3201
DE01	Mahesh Mani Class time/details on ELMs	Seats (Total: 10) ONLINE
FL01	Mahesh Mani Tu 7:00pm - 9:40pm	Seats (Total: 5) Location: TBA
SG01	Mahesh Mani Tu 7:00pm - 9:40pm	Seats (Total: 5) Location: TBA

SM01	Mahesh Mani Tu 7:00pm - 9:40pm	Seats (Total: 5) Location: TBA

ENPM693 **Network Security**

Credits: 3 Grading Method: Regular, Audit, Sat-Fail

Prerequisite: An operating systems and/or network protocol course or equivalent. Formerly: ENPM808N.

Introduction to various approaches to design; specify and verify security protocols used in large systems and networks; familiarization with some current technologies. Security threats and countermeasures, communication security and basic encryption techniques, authentication protocols, data confidentiality and integrity, analysis of cryptographic protocols, and access control in large systems and networks.

0101	Majid Raissi-Dehkordi M 7:00pm - 9:40pm	Seats (Total: 75) JMP 3201
CY01	Majid Raissi-Dehkordi Class time/details on ELMs	Seats (Total: 30) ONLINE
SG01	Majid Raissi-Dehkordi M 7:00pm - 9:40pm	Seats (Total: 5) Location: TBA
SM01	Majid Raissi-Dehkordi M 7:00pm - 9:40pm	Seats (Total: 5) Location: TBA

ENPM697 **Secure Software Testing and Construction**

(Perm req)

Credits: 3 Grading Method: Regular, Audit, Sat-Fail

Prerequisite: Permission of instructor; or (ENPM691 and CMSC106). And permission of ENGR-CDL-Office of Advanced Engineering Education. Credit only granted for: ENPM808K or ENPM697. Formerly: ENPM808K.

As software gets more complex, there is even more potential for vulnerabilities to remain in the production version. While traditional and emerging software testing methods are very good at detecting a large majority of "bugs" in the software, modifications to the methods are necessary to ensure vulnerabilities related to security are discovered and mitigated prior to release. In industry, there is also a cost-benefit analysis that determines the limits to pre-release testing, further enforcing the need to uniquely identify security vulnerabilities, potentially prioritizing their correction over other vulnerabilities. This course will cover methods of building security in from the beginning of development and testing the resulting software to ensure security vulnerabilities are detected. The course will use a mixture of textbook principles and research papers to cover the concepts. Students will also complete a course project.

0101	Dharmalingam Ganesan Th 4:00pm - 6:40pm	Seats (Total: 39) JMP 2222
CY01	Dharmalingam Ganesan Class time/details on ELMs	Seats (Total: 20) ONLINE
SG01	Dharmalingam Ganesan Th 4:00pm - 6:40pm	Seats (Total: 5) Location: TBA
SM01	Dharmalingam Ganesan Th 4:00pm - 6:40pm	Seats (Total: 5) Location: TBA

ENPM808 **Advanced Topics in Engineering**

(Perm req)

Credits: 1-3 Grading Method: Regular, Audit, Sat-Fail

Advanced topics selected by the faculty for students in the professional master of engineering program. May be taken for repeated credit when identified by topic title.

0101	George Syrmos Contact instructor or department for details.	Seats (Total: 25)
0201	Allen Hazelton, George Syrmos Contact instructor or department for details.	Seats (Total: 1)
0301	George Syrmos, Kevin Shivers Contact instructor or department for details.	Seats (Total: 1)

ENPM808C **Advanced Topics in Engineering; Ocean Energy Harvesting**

Credits: 3 Grading Method: Regular, Audit, Sat-Fail

Advanced topics selected by the faculty for students in the professional master of engineering program. May be taken for repeated credit when identified by topic title.

0101	Yunho Hwang Th 4:00pm - 6:40pm	Seats (Total: 25) JMP 2217
ME01	Yunho Hwang Contact instructor or department for details.	Seats (Total: 20)
SG01	Yunho Hwang Th 4:00pm - 6:40pm	Seats (Total: 5) Location: TBA
SM01	Yunho Hwang Th 4:00pm - 6:40pm	Seats (Total: 5) Location: TBA

ENPM808E **Advanced Topics in Engineering; Managing Software Engineering Projects**

Credits: 3 Grading Method: Regular, Audit, Sat-Fail

Advanced topics selected by the faculty for students in the professional master of engineering program. May be taken for repeated credit when identified by topic title.

0101	Salman Qureshi W 7:00pm - 9:40pm	Seats (Total: 25) JMP 2116
DE01	Salman Qureshi Class time/details on ELMs	Seats (Total: 20) ONLINE
SG01	Salman Qureshi W 7:00pm - 9:40pm	Seats (Total: 5) Location: TBA
SM01	Salman Qureshi W 7:00pm - 9:40pm	Seats (Total: 5) Location: TBA

ENPM808R **Advanced Topics in Engineering; Machine Learning Techniques Applied to Cybersecurity**

Credits: 3 Grading Method: Regular, Audit, Sat-Fail

Advanced topics selected by the faculty for students in the professional master of engineering program. May be taken for repeated credit when identified by topic title.

0101	Malachi Jones, Edward Raff W 7:00pm - 9:40pm	Seats (Total: 48) JMP 2121
DE01	Malachi Jones Class time/details on ELMs	Seats (Total: 10) ONLINE
SG01	Malachi Jones W 7:00pm - 9:40pm	Seats (Total: 5) Location: TBA
SM01	Malachi Jones W 7:00pm - 9:40pm	Seats (Total: 5) Location: TBA

ENPM808Y **Advanced Topics in Engineering; Neural Networks**

Credits: 3 Grading Method: Regular, Audit, Sat-Fail

Advanced topics selected by the faculty for students in the professional master of engineering program. May be taken for repeated credit when identified by topic title.

0101	Seyoung Oh W 4:00pm - 6:40pm	Seats (Total: 25) JMP 2216
SG01	Seyoung Oh W 4:00pm - 6:40pm	Seats (Total: 5) Location: TBA
SM01	Seyoung Oh W 4:00pm - 6:40pm	Seats (Total: 5) Location: TBA

ENPM809B **Special Topics in Engineering; Building a Manufacturing Robot Software System**

Credits: 3 Grading Method: Regular, Audit, Sat-Fail

Special topics selected by the faculty for students in the professional master of engineering and graduate certificate in engineering program. May be taken for repeated credit when identified by topic title.

0101	Zeid Kootbally, Craig Schlenoff W 4:00pm - 6:40pm	Seats (Total: 45) JMP 2116
FL01	Craig Schlenoff, Zeid Kootbally W 4:00pm - 6:40pm	Seats (Total: 5) Location: TBA

SG01	Craig Schlenoff, Zeid Kootbally W 4:00pm - 6:40pm	Seats (Total: 5) Location: TBA
SM01	Zeid Kootbally, Craig Schlenoff W 4:00pm - 6:40pm	Seats (Total: 5) Location: TBA

ENPM809C **Special Topics in Engineering; Applied Statistics**

Credits: 3 Grading Method: Regular, Audit, Sat-Fail

Special topics selected by the faculty for students in the professional master of engineering and graduate certificate in engineering program. May be taken for repeated credit when identified by topic title.

0101	Susan Mazzullo M 4:00pm - 6:40pm	Seats (Total: 25) JMP 2217
SG01	Susan Mazzullo M 4:00pm - 6:40pm	Seats (Total: 5) Location: TBA
SM01	Susan Mazzullo M 4:00pm - 6:40pm	Seats (Total: 5) Location: TBA

ENPM809I **Special Topics in Engineering; Embedded System Hacking and Security**

(Perm req)

Credits: 3 Grading Method: Regular, Audit, Sat-Fail

Special topics selected by the faculty for students in the professional master of engineering and graduate certificate in engineering program. May be taken for repeated credit when identified by topic title.

0101	Gananand Kini, Robert Heinemann Tu 4:00pm - 6:40pm	Seats (Total: 35) JMP 2121
CY01	Gananand Kini, Robert Heinemann Class time/details on ELMs	Seats (Total: 10) ONLINE
SG01	Gananand Kini, Robert Heinemann Tu 4:00pm - 6:40pm	Seats (Total: 5) Location: TBA

SM01	Gananand Kini, Robert Heinemann Tu 4:00pm - 6:40pm	Seats (Total: 5) Location: TBA

ENPM809T **Special Topics in Engineering; Autonomous Robotics**

Credits: 3 Grading Method: Regular, Audit, Sat-Fail

Special topics selected by the faculty for students in the professional master of engineering and graduate certificate in engineering program. May be taken for repeated credit when identified by topic title.

0101	Steven Mitchell Th 4:00pm - 6:40pm	Seats (Total: 15) JMP 2116
0201	Steven Mitchell M 4:00pm - 6:40pm	Seats (Total: 20) JMP 2216
SM01	Steven Mitchell Th 4:00pm - 6:40pm	Seats (Total: 5) Location: TBA

ENPM809Y **Special Topics in Engineering; Introductory Robot Programming**

(Perm req)

Credits: 3 Grading Method: Regular, Audit, Sat-Fail

Special topics selected by the faculty for students in the professional master of engineering and graduate certificate in engineering program. May be taken for repeated credit when identified by topic title.

0101	Zeid Kootbally W 7:00pm - 9:40pm	Seats (Total: 50) JMP 3201
DE01	Zeid Kootbally Class time/details on ELMs	Seats (Total: 20) ONLINE
FL01	Zeid Kootbally W 7:00pm - 9:40pm	Seats (Total: 5) Location: TBA
SG01	Zeid Kootbally W 7:00pm - 9:40pm	Seats (Total: 5) Location: TBA

SM01	Zeid Kootbally W 7:00pm - 9:40pm	Seats (Total: 5) Location: TBA

ENRE Reliability Engineering Spring 2020

ENRE447 **Fundamentals of Reliability Engineering**

(Perm req)

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Prerequisite: MATH141.

This course provides a general survey of the techniques of reliability engineering with a focus on quantitative methods. Topics covered include: failure modes and effects analysis, mathematical definition of reliability, probabilistic models to represent failure phenomena, statistical life models for non-repairable components, reliability data analysis, and system reliability models including fault trees, event trees. Students will learn how to apply these techniques to problems related to engineering systems, with example cases for process plants, energy systems and infrastructure.

0101	Katrina Groth M 3:30pm - 6:00pm	Seats (Total: 35) JMP 2121
ER01	Katrina Groth Class time/details on ELMs	Seats (Total: 7) ONLINE
RE01	Katrina Groth Class time/details on ELMs	Seats (Total: 5) ONLINE

ENRE489 **Special Topics in Reliability Engineering**

(Perm req)

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Selected topics of current importance in reliability engineering.

Contact department for information to register for this course.

ENRE489G **Special Topics in Reliability Engineering; Fundamental Reliability Analysis**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Selected topics of current importance in reliability engineering.

Contact department for information to register for this course.

ENRE620 **Mathematical Techniques of Reliability Engineering**

Credits: 3

Grading Method: Regular, Audit, Sat-Fail

Cross-listed with ENNU620.

Basic probability and statistics. Application of selected mathematical techniques to the analysis and solution of reliability engineering problems. Applications of matrices, vectors, tensors, differential equations, integral transforms, and probability methods to a wide range of reliability related problems.

0101	Reuel Smith TuTh 12:30pm - 1:45pm	Seats (Total: 20) JMP 2217
ER01	Reuel Smith Class time/details on ELMs	Seats (Total: 15) ONLINE
RE01	Reuel Smith Class time/details on ELMs	Seats (Total: 5) ONLINE

ENRE640 **Collection and Analysis of Reliability Data**

Credits: 3

Grading Method: Regular, Audit, Sat-Fail

Prerequisite: ENRE602.

Basic life model concepts. Probabilistic life models, for components with both time independent and time dependent loads. Data analysis, parametric and nonparametric estimation of basic time-to-failure distributions. Data analysis for systems. Accelerated life models. Repairable systems modeling.

0101	Vasiliy Krivtsov F 9:00am - 11:40am	Seats (Total: 20) JMP 2222
ER01	Vasiliy Krivtsov Class time/details on ELMs	Seats (Total: 16) ONLINE
RE01	Vasiliy Krivtsov Class time/details on ELMs	Seats (Total: 2) ONLINE
SG01	Vasiliy Krivtsov Class time/details on ELMs	Seats (Total: 1) ONLINE
SM01	Vasiliy Krivtsov Class time/details on ELMs	Seats (Total: 2) ONLINE

ENRE645 **Human Reliability Analysis**

Credits: 3 Grading Method: Regular, Audit, Sat-Fail

Credit only granted for: ENRE645 or ENRE734. Formerly: ENRE734.

Methods of solving practical human reliability problems, cognitive and behavioral modeling, task analysis, performance shaping factors, error classification, distribution of human performance and uncertainty bounds, sources of human error probability data, human error risk mitigation, examples and case studies.

Additional Note: Cross-listed with ENSE698Gor ENRE645 or ENSE698G.

0101	Monifa Vaughn-Cooke Tu 9:00am - 11:40am	Seats (Total: 10) JMP 2217
ER01	Monifa Vaughn-Cooke Class time/details on ELMs	Seats (Total: 10) ONLINE
RE01	Monifa Vaughn-Cooke Class time/details on ELMs	Seats (Total: 10) ONLINE

ENRE648 **Special Problems in Reliability Engineering**

(Perm req)

Credits: 1-6 Grading Method: Regular, Audit, Sat-Fail

For students who have definite plans for individual study of approved problems. Credit given according to extent of work.

Contact department for information to register for this course.

ENRE655 **Advanced Methods in Reliability Modeling**

Credits: 3 Grading Method: Regular, Audit, Sat-Fail

Prerequisite: ENRE602. Credit only granted for: ENRE655 or ENRE665. Formerly: ENRE665.

Bayesian methods and applications, estimation of rare event frequencies, uncertainty analysis and propagation methods, reliability analysis of dynamic systems, analysis of dependent failures, reliability of repairable systems, human reliability analysis methods and theory of logic diagrams and application to systems reliability.

0101	Mohammad Modarres M 11:00am - 1:40pm	Seats (Total: 15) JMP 2216

ER01	Mohammad Modarres Class time/details on ELMs	Seats (Total: 15) ONLINE
RE01	Mohammad Modarres Class time/details on ELMs	Seats (Total: 10) ONLINE

ENRE671 **Risk Assessment in Engineering**

Credits: 3 Grading Method: Regular, Audit, Sat-Fail

Prerequisite: ENRE670. Credit only granted for: ENRE648W or ENRE671. Formerly: ENRE648W.

Introduction to risk management and decision-making, including uncertainty propagation, importance ranking, risk acceptance criteria, decision analysis and other decsion-making techniques, risk communication.

Cross-listed with ENME607. Credit granted for ENRE671 or ENME607.

0101	Jeffrey Herrmann TuTh 2:00pm - 3:15pm	Seats (Total: 30) JMP 2222
ER01	Jeffrey Herrmann Class time/details on ELMs	Seats (Total: 15) ONLINE
RE01	Jeffrey Herrmann Class time/details on ELMs	Seats (Total: 10) ONLINE

ENRE799 **Master's Thesis Research**

Credits: 1-6 Grading Method: Sat-Fail

Contact department for information to register for this course.

ENRE898 **Pre-Candidacy Research**

Credits: 1-8 Grading Method: Regular, Sat-Fail

Contact department for information to register for this course.

ENRE899 **Doctoral Dissertation Research**

(Perm req)

Credits: 6 Grading Method: Sat-Fail

Contact department for information to register for this course.

ENSE622 **System Trade-off Analysis, Modeling, and Simulation**

(Perm req)

Credits: 3

Grading Method: Regular, Audit, Sat-Fail

Prerequisite: Permission of ENGR-Institute for Systems Research; and ENSE621. Recommended: Familiarity with calculus, probability, linear algebra, differential equations, & computer programming recommended. Credit only granted for: ENPM642 or ENSE622.

This course continues the model-based approach to systems engineering by introducing students to a variety of mathematical modeling and simulation techniques used to perform system performance, optimization, and trade-off analyses. Topics include: linear and integer programming; state machine models of finite state machines; development of simple intelligent agents; modeling Markov processes; queueing theory; multi-objective trade-off analyses; decision trees; stochastic (Monte Carlo) simulation, linear regression, some predictive analytic techniques; and an introduction to control theory. Mathematical models and simulations are developed and executed using MATLAB. The course includes a class project in which students solve a problem of interest to them using one or more of techniques addressed in class.

Cross-listed with ENPM642. Credit granted for ENSE622 or ENPM642

0101	Scott Simpkins M 7:00pm - 9:40pm	Seats (Total: 30) JMP 2222
DE01	Scott Simpkins M 7:00pm - 9:40pm	Seats (Total: 10) ONLINE
SG01	Scott Simpkins M 7:00pm - 9:40pm	Seats (Total: 5) Location: TBA
SM01	Scott Simpkins M 7:00pm - 9:40pm	Seats (Total: 5) Location: TBA

ENSE624 **Human Factors in Systems Engineering**

(Perm req)

Credits: 3

Grading Method: Regular, Audit, Sat-Fail

Restriction: Permission of ENGR-Institute for Systems Research. Credit only granted for: ENPM644 or ENSE624.

This course covers the general principles of human factors, or ergonomics as it is sometimes called. Human Factors (HF) is an interdisciplinary approach for dealing with issues related to people in systems. It focuses on consideration of the characteristics of human beings in the design of systems and devices of all kinds. It is concerned with the assignment of appropriate functions for humans and machines, whether the people serve as operators, maintainers, or users of the system or device. The goal of HF is to achieve compatibility in the design of interactive systems of people, machines, and environments to ensure their effectiveness, safety and ease of use.

Cross-listed with ENPM644. Credit granted for ENPM644 or ENSE624.

0101	Robert Beaton Th 7:00pm - 9:40pm	Seats (Total: 30) JMP 3201
DE01	Robert Beaton Th 7:00pm - 9:40pm	Seats (Total: 10) ONLINE
SG01	Robert Beaton Th 7:00pm - 9:40pm	Seats (Total: 5) Location: TBA
SM01	Robert Beaton Th 7:00pm - 9:40pm	Seats (Total: 5) Location: TBA

ENSE627 **Systems Quality and Robustness Analysis**

(Perm req)

Credits: 3 Grading Method: Regular, Sat-Fail

Restriction: Permission of ENGR-Institute for Systems Research. Credit only granted for: ENPM647 or ENSE627.

This course covers systems engineering approaches for creating optimal and robust engineering systems and for quality assurance. It provides an overview of the important tools for quality analysis and quality management of engineering systems. These tools are commonly used in companies and organizations. Focus is placed on the Baldrige National Quality Program, ISO 9000 certification, six-sigma systems, and Deming total quality management to examine how high quality standards are sustained and customer requirements and satisfactions are ensured. The Taguchi method for robust analysis and design is covered and applied to case studies. Issues of flexible design over the system life cycle are addressed. Statistical process control, international standards for sampling, and design experimentation are also studied.

Cross-listed with ENPM647. Credit granted for ENPM647 or ENSE627.

0101	Tony Barber W 7:00pm - 9:40pm	Seats (Total: 30) JMP 2222

DE01	Tony Barber W 7:00pm - 9:40pm	Seats (Total: 10) ONLINE
SG01	Tony Barber W 7:00pm - 9:40pm	Seats (Total: 5) Location: TBA
SM01	Tony Barber W 7:00pm - 9:40pm	Seats (Total: 5) Location: TBA

ENSE698B **Special Topics in Systems Engineering; Applied Formal Methods**

Credits: 3 Grading Method: Regular, Audit, Sat-Fail

Prerequisite: MATH141 or equivalent. Introduces best practices for the application of formal methods, a set of mathematically rigorous techniques for the formal specification, validation, and verification of safety-critical systems, of which aircraft and spacecraft are the prime examples. Explores tools, techniques, and applications of formal methods, focusingon aerospace and robotic domains. Students examine the latest research to gain an understanding of the current state of the art, including the capabilities and limitations of applying formal methods for systems analysis. Students from all areas of engineering and computer science are encouraged to enroll.

0101	Huan Xu TuTh 11:00am - 12:15pm	Seats (Total: 20) Location: TBA

ENSE698G **Special Topics in Systems Engineering; Human Reliability Analysis**

Credits: 3 Grading Method: Regular, Audit, Sat-Fail

Cross-listed with ENRE645. Credit granted for ENRE645 or ENSE698G. Metho dsof solving practical human reliability problems, cognitive and behavioral modeling, task analysis, performance shaping factors, error classification, distribution of human performance and uncertainty boun ds, sources of human error probability data, human error risk mitigation , examples and case studies.

0101	Monifa Vaughn-Cooke Tu 9:00am - 11:40am	Seats (Total: 10) JMP 2217
ER01	Monifa Vaughn-Cooke Class time/details on ELMs	Seats (Total: 10) ONLINE
RE01	Monifa Vaughn-Cooke Class time/details on ELMs	Seats (Total: 10) ONLINE

ENSE699 **Directed Study in Systems Engineering**

(Perm req)

Credits: 1-3 Grading Method: Sat-Fail

Directed study in Systems Engineering.

Contact department for information to register for this course.

ENSE799 **Systems Engineering Thesis; Masters Thesis Research**

(Perm req)

Credits: 1-6 Grading Method: Sat-Fail

The application of systems engineering concepts, principles, and theories will be applied to the Master's Thesis project. Project/thesis work will be defined and selected early in student's program and supervised by a university faculty mentor.

Contact department for information to register for this course.

ENSP Environmental Science and Policy Spring 2020

ENSP101 **Introduction to Environmental Science**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit CORE: PS General Education: DSNS

One of two required courses that introduce students to the topics studied and methods employed in environmental science and policy. Emphasis on scientific ways of knowing; the systems, cycles, flows, and interfaces that characterize the atmosphere, lithosphere, hydrosphere, and biosphere; the analysis of human impacts on these systems; and the nature of scientific uncertainty and methods of quantifying environmental processes.

Contact department for information to register for this course.

ENSP102 **Introduction to Environmental Policy**

Credits: 3 Grading Method: Regular, Pass-Fail General Education: DSHS

Additional information: May be taken before or after ENSP101.

Second of two courses that introduce students to the topics studied and methods employed in environmental science and policy. Emphasis on the process of formulating, implementing, and evaluating policy responses to environmental problems, with particular attention to policy controversies related to scientific uncertainty, risk assessment, the valuation of nature, and distributional equity. May be taken before or after ENSP101.

0101	Joanna Goger	Seats (Total: 22)	
	TuTh 9:30am - 10:45am F 10:00am - 10:50am	SKN 0200 EGR 3102	Discussion

0102	Joanna Goger TuTh 9:30am - 10:45am F 11:00am - 11:50am	Seats (Total: 22) SKN 0200 EGR 3102	Discussion
0103	Joanna Goger TuTh 9:30am - 10:45am F 11:00am - 11:50am	Seats (Total: 23) SKN 0200 EGR 1102	Discussion
0104	Joanna Goger TuTh 9:30am - 10:45am Th 2:00pm - 2:50pm	Seats (Total: 22) SKN 0200 EGR 2154	Discussion
0105	Joanna Goger TuTh 9:30am - 10:45am F 10:00am - 10:50am	Seats (Total: 22) SKN 0200 CHE 2140	Discussion
0106	Joanna Goger TuTh 9:30am - 10:45am Th 3:00pm - 3:50pm	Seats (Total: 22) SKN 0200 CHE 2140	Discussion
0107	Joanna Goger TuTh 9:30am - 10:45am Th 3:00pm - 3:50pm	Seats (Total: 22) SKN 0200 MTH 0104	Discussion

ENSP250 **Lawns in the Landscape: Environmental Hero or Villain?**

Credits: 3 | Grading Method: Regular, Pass-Fail | General Education: DSNS, SCIS

Cross-listed with PLSC250. Credit only granted for: ENSP250 or PLSC250.

Examination of the lawn as an element in the anthropogenic landscape and its influence on global warming, regional air and water quality, ecological diversity, mammalian pesticide exposure and consumptive water use. Demographic and socioeconomic factors are examined in the context of being predictors of landscape aesthetic desires and lawn management behaviors. Policies that incentivize lawn alternatives or changes in lawn management behavior are discussed.

0101	Mark Carroll MW 4:00pm - 5:15pm	Seats (Total: 25) SYM 0209	

ENSP305 **Applied Quantitative Methods in Environmental Science and Policy**

Credits: 3

Grading Method: Regular, Pass-Fail, Audit

Prerequisite: BIOM301, ECON321, GEOG306, PSYC200, or SOCY201; and (ENSP101 and ENSP102). And MATH120, MATH130, MATH136, or MATH140; or must have completed MATH220. Restriction: Must be in a major in AGNR-Dean-Environmental Science & Policy Program; or permission of AGNR-Dean-Environmental Science & Policy Program. Credit only granted for: ENSP305 or AREC382. Additional information: Applied topics covered in this course will supplement coursework in introductory statistics and mathematics; this course is not intended for students with significant previous advanced data analysis or statistical experience.

Intended for students interested in pursuing career or graduate research opportunities that will include management of environmental databases, detailed analysis of environmental data, and/or application of predictive environmental models. Students will learn necessary skills to manage and analyze environmental data through hands-on training in commonly used software and a series of topical case studies. Data analysis and data management will be taught using publicly available real-world environmental data sets.

0101	Annette Spivy	Seats (Total: 23)
	TuTh 5:00pm - 6:15pm	ANS 0509

ENSP306 **Fundamentals of Qualitative Research Methods for Environmental Studies**

Credits: 3

Grading Method: Regular, Pass-Fail, Audit

An introduction to research design and methods, with an in-depth focus on qualitative research methods and application to environmental studies. Topics include: writing an appropriate research question, identifying relevant methods, submitting a proposal to the Institutional Review Board, choosing appropriate sampling approaches, conducting interviews, focus groups, ethnographies, analyzing textual data, and presenting qualitative results.

0101	Caroline Boules	Seats (Total: 25)
	MW 2:00pm - 3:15pm	EGR 0135

ENSP330 **Introduction to Environmental Law**

(Perm req)

Credits: 3

Grading Method: Regular, Pass-Fail, Audit

Recommended: ENSP101 and ENSP102. Restriction: Junior standing or higher. And must be a major in the Environmental Science and Policy program; or permission of Environmental Science and Policy program.

An overview of environmental law, from its common law roots to its role in the modern regulatory state, including an examination of major federal environment statutes and the policy debates inherent in them. Other areas covered include civil and criminal enforcement, standing to sue, land use control, and regulatory takings.

0101	Joanna Goger	Seats (Total: 35)
	TuTh 12:30pm - 1:45pm	SYM 0215

ENSP342 **Environmental Threats to Oceans and Coasts: Towards an Integrated Policy Response**

(Perm req)

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Recommended: ENSP101 and ENSP102. Restriction: Must have earned a minimum of 60 credits. And must be a major in the Environmental Science and Policy program; or permission of Environmental Science and Policy program.

An interdisciplinary study of the challenges of maintaining the health and vitality of oceans and coasts in the face of climate change, extreme weather, and other threats including pollution, and oil and gas development. Exploration of four broad themes: resource management, conservation and stewardship, pollution, and coastal zone management. Also, an analysis of current efforts to integrate these themes through ecosystem-based management; marine spatial planning; and related policy responses.

0101	Annette Spivy	Seats (Total: 30)
	TuTh 2:00pm - 3:15pm	PLS 1111

ENSP386 **Internship**

(Perm req)

Credits: 3-6 Grading Method: Regular, Pass-Fail

Restriction: Must have internship proposal approved by the concentration advisor, the director of ENSP and the student's internship sponsor.

Contact department for information to register for this course.

ENSP399 **Special Topics in Environmental Science and Policy**

(Perm req)

Credits: 1-3 Grading Method: Regular, Pass-Fail, Audit

A substantive and specialized examination of contemporary issues in environmental science or policy.

Contact department for information to register for this course.

ENSP399R **Special Topics in Environmental Science and Policy; Research**

(Perm req)

Credits: 1-3

Grading Method: Regular, Pass-Fail, Audit

A substantive and specialized examination of contemporary issues in environmental science or policy.

0101	Melissa Kenney, Ariana Sutton-Grier F 10:00am - 1:00pm	Seats (Total: 15) Location: TBA
0301	Instructor: TBA Contact instructor or department for details.	Seats (Total: 15)
0601	Annette Spivy Contact instructor or department for details.	Seats (Total: 10)
1001	Jennifer Mullinax Contact instructor or department for details.	Seats (Total: 10)

ENSP400 **Capstone in Environmental Science and Policy**

(Perm req)

Credits: 3

Grading Method: Regular, Pass-Fail

CORE: CS

General Education: DSSP

Prerequisite: ENSP101; and ENSP102. Restriction: Must be in Environmental Science and Policy program; and senior standing; and permission of the Environmental Science and Policy Program.

Integration of physical, biological, and social sciences with applications to environmental science and policy. Problem-solving and multi-disciplinary case study evaluations pertinent to contemporary and future issues related to the environment.

0101	Caroline Boules TuTh 3:30pm - 4:45pm	Seats (Total: 30) ESJ 0215
0102	Annette Spivy TuTh 3:30pm - 4:45pm	Seats (Total: 30) ESJ 1309

ENSP499 **Honors Thesis Research**

Credits: 1-6

Grading Method: Regular, Pass-Fail

Individual research, thesis, and oral defense. The research project will be conducted under the supervision of a faculty member.

Contact department for information to register for this course.

ENST Environmental Science and Technology Spring 2020

ENST100 **International Crop Production-Issues and Challenges in the 21st Century**

Credits: 3 | Grading Method: Regular, Pass-Fail, Audit | CORE: LS

Credit only granted for: ENST100 or NRSC100. Formerly: NRSC100.

Examines the role of crop production in elevating humans out of poverty in developing countries. It will introduce students to the basic principles of plant and soil science underlying the international production of food crops and world food security. The role of multinational agencies such as the World Bank in the promotion of sustainable crop production using environmentally-sound technologies will also be discussed.

0101	Jose-Luis Izursa, Prabahkar Tamboli TuTh 11:00am - 12:15pm	Seats (Total: 38) CHM 0128	

ENST200 **Fundamentals of Soil Science**

Credits: 4 | Grading Method: Regular, Pass-Fail, Audit | CORE: LL | General Education: DSNL

Corequisite: CHEM131 and CHEM132; or permission of AGNR-Environmental Science & Technology department. Credit only granted for: ENST200 or NRSC200. Formerly: NRSC200.

Study and management of soils as natural bodies, media for plant growth, and ecosystem components. Morphology, composition, formation, and conservation of soils. Chemical, biological, and physical properties are discussed in relation to the production of plants, the functioning of hydrologic and nutrient cycles, the protection of environmental quality, and engineering uses of soils.

0101	Eni Baballari TuTh 9:30am - 10:45am Tu 4:00pm - 6:50pm	Seats (Total: 20) CCC 1100 HJP 0210	 Lab
0102	Eni Baballari TuTh 9:30am - 10:45am W 9:00am - 11:50am	Seats (Total: 20) CCC 1100 HJP 0210	 Lab
0103	Eni Baballari TuTh 9:30am - 10:45am W 4:00pm - 6:50pm	Seats (Total: 20) CCC 1100 HJP 0210	 Lab

ENST214 **Introduction to Fish and Wildlife Sciences**

Credits: 3 | Grading Method: Regular, Pass-Fail, Audit | CORE: IE

Prerequisite: BSCI160 and BSCI161; or BSCI106.

Lectures, discussion, and readings in social, biological, and human dimension issues facing fisheries and wildlife biologists and natural resource managers in the United States. Coverage will include history and philosophical discussions of fish and wildlife sciences; conservation and management; principles of community, habitat, and animal ecology and management; and interrelations of wildlife, fish, and forestry.

0101	Shannon Browne TuTh 2:00pm - 3:15pm	Seats (Total: 30) ANS 0422	

ENST233 Introduction to Environmental Health

Credits: 4 | Grading Method: Regular, Pass-Fail, Audit | General Education: DSNS

Examines how humans are affected by the quality of our air, water, soil and food supply as well as how human activities alter these survival necessities. Students will learn how the evolution and prosperity of human populations have resulted in degradation of our environment and the impact of environmental degradation on the health of people. The implications of individual and collective choices for sustainable food production, population management, and resource utilization will be explored.

0101	Jennifer Gunnulfsen TuTh 2:00pm - 3:15pm M 1:00pm - 1:50pm	Seats (Total: 20) ANS 0408 ANS 0422	 Discussion
0102	Jennifer Gunnulfsen TuTh 2:00pm - 3:15pm M 2:00pm - 2:50pm	Seats (Total: 20) ANS 0408 ANS 0422	 Discussion
0103	Jennifer Gunnulfsen TuTh 2:00pm - 3:15pm W 1:00pm - 1:50pm	Seats (Total: 20) ANS 0408 ANS 0422	 Discussion
0104	Jennifer Gunnulfsen TuTh 2:00pm - 3:15pm W 2:00pm - 2:50pm	Seats (Total: 20) ANS 0408 ANS 0422	 Discussion

ENST309 Advanced Field Soil Morphology

Credits: 1 | Grading Method: Regular, Pass-Fail, Audit

This is a field-oriented course that provides advanced training for students in the techniques used to (1) describe soil morphology, and site and profile characteristics, (2) make land use interpretations based on soil characteristics, and (3) classify soils. This class is designed to prepare students for the National Collegiate Soil Judging Contest and for students to gain experience in the description and interpretation of soils in the field. Students will be exposed to a variety of soil landscapes and geology from outside of the northeastern U.S.

0101	Brian Needelman Contact instructor or department for details.	Seats (Total: 15)

ENST334 **Environmental Toxicology**

Credits: 3

Grading Method: Regular, Pass-Fail, Audit

Prerequisite: CHEM131, CHEM132, and BSCI207; or permission of AGNR-Environmental Science & Technology department.

Concepts and case histories in ecotoxicology. Emphasis on origin and variety of environmental pollutants, routes of biological exposure, modes of toxicological action and effects on individual organisms, populations and ecosystems. Ecotoxicological issues in the Chesapeake Bay will be used as examples.

0101	Carys Mitchelmore TuTh 12:30pm - 1:45pm	Seats (Total: 35) ANS 0412

ENST388 **Honors Thesis Research**

Credits: 3-6

Grading Method: Regular, Pass-Fail, Audit

Undergraduate honors thesis research conducted under the direction of an AGNR faculty member in partial fulfillment of the requirements of the College of AGNR Honors Program. The thesis will be defended to a faculty committee.

1803	Paul Leisnham Contact instructor or department for details.	Seats (Total: 1)
2201	Martin Rabenhorst Contact instructor or department for details.	Seats (Total: 1)
2905	Stephanie Yarwood Contact instructor or department for details.	Seats (Total: 3)
3001	Lance Yonkos Contact instructor or department for details.	Seats (Total: 1)

ENST389 **Internship**

(Perm req)

Credits: 3 Grading Method: Sat-Fail

Credit will be granted for practical work carried out by students placed in work environment related to their stated career goals. Students must do an in-depth study in some portion of the work experience and produce a special project or report related to this study. A student work log is also recommended. An evaluation from the external supervisor of the project will be required. Credit arranged with supervising faculty member.

0101	Jose-Luis Izursa	Seats (Total: 50)
	Contact instructor or department for details.	

ENST404 **Ecological and Natural Resources Ethics**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Prerequisite: ENST214 and ENST360. Recommended: ENST314, ENST410, and ENST460. Restriction: Senior standing or higher. Jointly offered with ENST604. Credit only granted for: ENST604 or ENST404.

Bridges science and management with ethical theory and concepts to help scientists, regulators, and managers understand how to deal with potential ethical dilemmas that arise in natural resource and environmental management implementation and policy development.

0101	Reginal Harrell	Seats (Total: 30)
	TuTh 11:00am - 12:15pm	ANS 0422

ENST405 **Energy and Environment**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Prerequisite: MATH140 or MATH120; or must have completed MATH220. Restriction: Junior standing or higher. And must be in Environmental Sci & Tech program; or must be in Environmental Sci & Tech: Ecological Tech Design program; or must be in Environmental Sci & Tech: Environmental Health program; or must be in Environmental Sci & Tech: Soil & Watershed Science program; or must be in Environmental Sci & Tech: Natural Resources Mgmt program. Jointly offered with ENST605. Credit only granted for: ENST405, ENSP350, ENST605, or MEES698Z.

Introduction to the role of energy in environmental and human-dominated systems. Discussion of the historical and modern production and consumption of energy. Introduction to energy systems computer simulation and energy auditing.

Jointly offered with MEES698Z. Credit granted for ENST405 or MEES698Z.

0101	David Tilley	Seats (Total: 40)	
	MWF 10:00am - 10:50am	ANS 0422	

ENST421 **Soil Chemistry**

Credits: 4 Grading Method: Regular, Pass-Fail, Audit

Prerequisite: ENST200. Credit only granted for: ENST421 or NRSC421. Formerly: NRSC421.

The chemistry and composition of mineral and organic colloids in soils, including ion exchange, oxidation-reduction, acidity, surface charge, and solution chemistry. Lectures and readings pertain to plant nutrition, waste disposal, and groundwater quality.

0101	Candice Duncan	Seats (Total: 14)	
	TuTh 12:30pm - 1:45pm	CHE 2145	
	Tu 2:00pm - 4:50pm	HJP 0108	Lab

ENST422 **Soil Microbial Ecology**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Prerequisite: ENST200; or 1 course in BCHM; or must have completed a course in microbiology; or students who have taken courses with comparable content may contact the department. Jointly offered with ENS T622. Credit only granted for: ENST422 or NRSC422. Formerly: NRS C422.

The interdisciplinary study of soil microorganisms and their interactions with the mineral matrix; resulting in processes such as nutrient cycling, decontamination, and natural product production. We will focus on the diversity of soil communities, their survival strategies, and the new strategies used to study these communities.

0101	Stephanie Yarwood	Seats (Total: 25)	
	TuTh 9:30am - 10:45am	ANS 0422	

ENST423 **Soil-Water Pollution**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Prerequisite: CHEM104 and ENST200. Credit only granted for: ENST423 or NRSC423.

Reaction and fate of pesticides, agricultural fertilizers, industrial and animal wastes in soil and water with emphasis on their relation to the environment.

0101	Robert Hill	Seats (Total: 35)
	TuTh 11:00am - 12:15pm	ANS 0412

ENST430 **Wetland Soils**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Prerequisite: ENST200. Credit only granted for: ENST430, ENST630, or NRSC461. Formerly: NRSC461.

The soils of wetlands including hydrology, chemistry, and genesis are discussed. Federal and regional guidelines for wetland soils are covered with an emphasis on validating interpretations through field observations.

0101	Martin Rabenhorst	Seats (Total: 14)	
	MW 2:00pm - 2:50pm	EGR 3102	
	M 3:00pm - 6:00pm	HJP 0210	Lab

ENST436 **Emerging Environmental Threats**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Prerequisite: ENST233; or permission of AGNR-Environmental Science & Technology department.

Examine new and potential environmental concerns in the air, water, soil, space, and the built environment. Emphasis on studying the intrinsic links between ecosystem and human health. Topics will include climate change, resource consumption, biodiversity change, infectious disease, non-traditional pollutants, and other complex and significant environmental concerns.

0101	Paul Leisnham	Seats (Total: 35)
	MWF 11:00am - 11:50am	ANS 0422

ENST445 **Ecological Risk Assessment**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Prerequisite: ENST360 or BSCI361; and (BIOM301 and ENST334). Or permission of AGNR-Environmental Science & Technology department.

Assessment of ecological impacts of perturbations on natural systems. Course will describe methods for estimating environmental impacts including extrapolating from laboratory and field data. The role of regulatory agencies and implications of scientific uncertainty on risk management will be covered.

0101	Scott Lynn, Emily Morrison MTh 6:30pm - 7:45pm	Seats (Total: 30) ANS 0422	

ENST452 **Wetland Restoration**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Prerequisite: (BSCI160 and BSCI161; or BSCI106); and (BSCI362, ENST450, ENST360, or BSCI361). Or permission of AGNR-Environmental Science & Technology department. Credit only granted for: ENST452, ENST652, or MEES652.

Design, construction, and evaluation of wetlands restored or created to provide ecosystem services or to mitigate losses due to development. Topics include fundamental properties of wetlands, ecological restoration theory, site selection and goal-setting, design plans, practices for establishing wetland hydrology, substrate, and vegetation, and restored ecosystem monitoring.

0101	Andrew Baldwin TuTh 2:00pm - 3:15pm	Seats (Total: 40) ANS 0412	

ENST462 **Field Techniques in Wildlife Management**

(Perm req)

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Prerequisite: ENST460. And BSCI160 and BSCI161; or BSCI106. And BSCI170 and BSCI171; or BSCI105. Recommended: ENST461. Restriction: Permission of AGNR-College of Agriculture & Natural Resources.

Hands-on experience with field techniques in wildlife management focusing on various methods of conducting indices, estimates, and censuses of wildlife populations. Includes capture and handling of amphibians, reptiles, birds, and mammals by use of drift fences, cover boards, mist nets, box traps, and dart guns.

0101	Shannon Browne	Seats (Total: 15)	
	F 11:00am - 11:50am	ANS 0509	
	F 1:00pm - 2:50pm	ANS 0538	Lab
	F 12:00pm - 12:50pm	ANS 0538	Discussion

ENST470 **Ideas into Impact**

(Perm req)

Credits: 3 Grading Method: Regular, Pass-Fail CORE: CS

Restriction: Permission of AGNR-Environmental Science & Technology department.

This will be a capstone-type course based around developing proposals for projects emphasizing research, monitoring, design, restoration, managament, entrepreneurship, or other approaches to ecological or environmental questions, issues, or problems.

0101	David Tilley MWF 4:00pm - 4:50pm	Seats (Total: 40) ANS 0538

ENST472 **Capstone II**

(Perm req)

Credits: 3 | Grading Method: Regular, Pass-Fail, Audit | CORE: CS | General Education: DSSP

Prerequisite: ENST471. Restriction: Must be in a major within AGNR-Environmental Science & Technology department; and permission of AGNR-Environmental Science & Technology department.

This course is the second in a two-part series. Students will continue work on projects proposed and begun in ENST471. Focus on professional project preparation, presentation, critical evaluation on environmental science research, professional development, and career planning. Students will develop and present original projects and critique projects presented by others.

1201	Andrew Baldwin Contact instructor or department for details.	Seats (Total: 15)
1205	William Bowerman Contact instructor or department for details.	Seats (Total: 15)
1501	Gary Felton Contact instructor or department for details.	Seats (Total: 15)
1505	Lance Yonkos Contact instructor or department for details.	Seats (Total: 15)
1601	Robert Hill Contact instructor or department for details.	Seats (Total: 15)
1701	Patrick Benson Contact instructor or department for details.	Seats (Total: 15)
1801	Patrick Kangas Contact instructor or department for details.	Seats (Total: 15)
1802	Stephanie Lansing Contact instructor or department for details.	Seats (Total: 15)

1803	Paul Leisnham Contact instructor or department for details.	Seats (Total: 15)
1805	Michael Kearney Contact instructor or department for details.	Seats (Total: 5)
2101	Brian Needelman Contact instructor or department for details.	Seats (Total: 7)
2104	Shannon Browne Contact instructor or department for details.	Seats (Total: 15)
2105	Wendy Peer Contact instructor or department for details.	Seats (Total: 15)
2201	Martin Rabenhorst Contact instructor or department for details.	Seats (Total: 15)
2601	David Tilley Contact instructor or department for details.	Seats (Total: 15)
2701	Raymond Weil Contact instructor or department for details.	Seats (Total: 15)
2801	Kate Tully Contact instructor or department for details.	Seats (Total: 2)
2804	Jose-Luis Izursa Contact instructor or department for details.	Seats (Total: 15)
2805	Gurpal Toor Contact instructor or department for details.	Seats (Total: 15)
2905	Stephanie Yarwood Contact instructor or department for details.	Seats (Total: 15)
3101	Steven Mirsky Contact instructor or department for details.	Seats (Total: 5)
3201	Peter May Contact instructor or department for details.	Seats (Total: 4)
3202	Candice Duncan Contact instructor or department for details.	Seats (Total: 4)

ENST481 **Ecological Design**

(Perm req)

Credits: 4 Grading Method: Regular, Pass-Fail, Audit

Prerequisite: (MATH120 or MATH140; or must have completed MATH220); and (PHYS121 and CHEM131); and (BSCI361; or students who have taken courses with comparable content may contact the department). Or permission of instructor. Restriction: Permission of AGNR-Environmental Science & Technology department. Jointly offered with MEES681. Credit only grant ed for: ENST481, ENST681, or MEES681.

An advanced survey course on the field of ecological design. Principles of design are illustrated with case studies from biologically-based waste treatment systems, ecosystem management and sustainable development. Concepts covered include ecology, ecological engineering, nutrient cycling, emergy, lifecycle analysis, and design process. Technologies include treatment wetlands, living machines, anaerobic digestion, rain gardens, bioswales, bioremediation, algal turf scrubbers, and green building design.

0101	Stephanie Lansing TuTh 12:30pm - 1:45pm Tu 9:00am - 10:50am	Seats (Total: 20) ANS 0422 ANS 0538	 Lab
0102	Stephanie Lansing TuTh 12:30pm - 1:45pm Th 9:00am - 10:50am	Seats (Total: 20) ANS 0422 ANS 0538	 Lab

ENST486 **SENIOR PROFESSIONAL INTERNSHIP**

(Perm req)

Credits: 3 Grading Method: Regular, Pass-Fail

Prerequisite: ENST389. Restriction: Permission of AGNR-Environmental Science & Technology department. Additional information: The course has two types of activities: lecture and experiential learning. Students are supposed to work on their internship for 90 hours and participate in a 2-hour lecture every other week, during the semester.

Experiential learning is a key component in Environmental Science and Technology education. Through the senior professional internship program, you will have the opportunity to develop your expertise in a specific area or discipline within your ENST concentration curriculum. You will arrange an off-campus internship experience related to Environmental Science and Technology. You will spend a specified number of hours at their internship site each week and attend biweekly classroom sessions where we will discuss how the study environmental science and technology fits into your specific internship experience as well as understand how to achieve each of the course learning outcomes.

0101	Jose-Luis Izursa F 10:00am - 2:30pm	Seats (Total: 40) ANS 1420	

ENST489 **Research Experience**

(Perm req)

Credits: 3

Grading Method: Regular, Pass-Fail, Audit

An advanced research-based course in the field of environmental science and technology.

Contact department for information to register for this course.

ENST499 **Special Topics in Environmental Science and Technology**

(Perm req)

Credits: 1-4

Grading Method: Regular, Pass-Fail, Audit

An independent study, and/or lecture, and/or laboratory series organized to study a selected phase of Environmental Science and Technology not covered by existing courses. Credit arranged with supervising faculty member.

Contact department for information to register for this course.

ENST499B **Special Topics in Environmental Science and Technology; Ecology of Plastics**

Credits: 3

Grading Method: Regular, Pass-Fail, Audit

An independent study, and/or lecture, and/or laboratory series organized to study a selected phase of Environmental Science and Technology not covered by existing courses. Credit arranged with supervising faculty member.

This course covers the nature of plastics ranging from chemical composition and production to large-scale aspects of economics, policy, and pollution. The role of plastics in ecosystems is emphasized in lectures and hands-on exercises. Technologies for disposal and recycling of waste plastics are reviewed. The relatively new field of Industrial Ecology provides a context in the course for considering plastics as a product of human systems within the Biosphere. Through literature review and ecological reasoning, the course will challenge some currently-held beliefs about plastics in the environment.

0101	Patrick Kangas	Seats (Total: 18)
	TuTh 3:30pm - 4:45pm	ANS 0538

ENST499J **Special Topics in Environmental Science and Technology; Ecosystem Services in the Concrete Jungle**

Credits: 3

Grading Method: Regular, Pass-Fail, Audit

An independent study, and/or lecture, and/or laboratory series organized to study a selected phase of Environmental Science and Technology not covered by existing courses. Credit arranged with supervising faculty member.

Ecological principles for the built environment and the tools needed to understand critical drivers of urban ecosystem structure and function. Topics will include ecology in and of cities, ecosystem services, urban metabolism, climate adaptation, and water management. This will focus on reading and analysis of primary scientific literature. This course will prepare students to deal with the complex issues involved in understanding the ecology and ecosystem services of the built environment. Students will understand and analyze the ecological, planning, design, and policy dimensions of promoting urban ecosystems and the services they provide.

0101	Mitchell Pavao-Zuckerman MW 3:00pm - 4:15pm	Seats (Total: 30) ANS 0422

ENST499Y **Special Topics in Environmental Science and Technology; College Teaching**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

An independent study, and/or lecture, and/or laboratory series organized to study a selected phase of Environmental Science and Technology not covered by existing courses. Credit arranged with supervising faculty member.

1508	Reginal Harrell Contact instructor or department for details.	Seats (Total: 5)
2104	Shannon Browne Contact instructor or department for details.	Seats (Total: 4)
2701	Raymond Weil Contact instructor or department for details.	Seats (Total: 4)
2804	Jose-Luis Izursa Contact instructor or department for details.	Seats (Total: 4)
3201	Peter May Contact instructor or department for details.	Seats (Total: 4)
3202	Candice Duncan Contact instructor or department for details.	Seats (Total: 4)

ENST604 **Advanced Ecological and Natural Resource Ethics**

Credits: 3 Grading Method: Regular, Audit, Sat-Fail

Prerequisite: ENST214 and ENST360. Recommended: ENST314, ENST410, and ENST460. Credit only granted for: ENST404 or ENST604.

Bridges science and management with ethical theory and concepts to help scientists, regulators, and managers understand how to deal with potential ethical dilemmas that arise in natural resource and environmental management implementation and policy development.

0101	Reginal Harrell	Seats (Total: 10)
	TuTh 11:00am - 12:15pm	ANS 0422

ENST608 **Research Methods**

(Perm req)

Credits: 1-4 Grading Method: Regular, Audit, Sat-Fail

Development of research viewpoint by detailed study and report on crop and soil research of the Maryland Agriculture Experiment Station or review and discussion of literature on specific agricultural problems or new research techniques.

Contact department for information to register for this course.

ENST622 **Advanced Soil Microbial Ecology**

Credits: 3 Grading Method: Regular, Audit, Sat-Fail

Prerequisite: ENST200; or 1 course in BCHM; or must have completed one course in microbiology; or students who have taken courses with comparable content may contact the department. Jointly offered with ENS T422. Credit only granted for: ENST422 or ENST622.

The interdisciplinary study of soil microorganisms and their interactions with the mineral matrix; resulting in processes such as nutrient cycling, decontamination, and natural product production. We will focus on the diversity of soil communities, their survival strategies, and the new strategies used to study these communities.The course will include an examination of current literature in this field.

0101	Stephanie Yarwood	Seats (Total: 9)
	TuTh 9:30am - 10:45am	ANS 0422

ENST630 **Advanced Wetland Soils**

Credits: 3 Grading Method: Regular, Audit, Sat-Fail

Prerequisite: ENST200. Credit only granted for: ENST630, ENST430, or NRSC461.

The soils of wetlands including hydrology, biogeochemistry, and pedogenesis, including a focused discussion of current literature. Federal and regional guidelines for wetland soils are covered with an emphasis on validating interpretations through field observations.

0101	Martin Rabenhorst	Seats (Total: 6)	
	MW 2:00pm - 2:50pm	EGR 3102	
	M 3:00pm - 6:00pm	HJP 0210	Lab
	W 3:00pm - 3:50pm	ANS 1422	Discussion

ENST681 **Advanced Ecological Design**

Credits: 3 Grading Method: Regular, Audit, Sat-Fail

Prerequisite: Must have completed one semester of calculus; and (CHEM131 and PHYS121). Or permission of instructor. Cross-listed with M EES681. Credit only granted for: ENST481, ENST681, or MEES681.

An advanced survey course on the field of ecological design. Principles of design are illustrated with case studies from biologically-based waste treatment systems, ecosystem management and sustainable development.

0101	Stephanie Lansing	Seats (Total: 20)
	TuTh 12:30pm - 1:45pm	ANS 0422

ENST689 **Special Topics**

Credits: 1-3 Grading Method: Regular, Audit, Sat-Fail

Credit according to time scheduled and organization of the course. Organized as a lecture series on a specialized advanced topic.

1201	Andrew Baldwin	Seats (Total: 15)
	Contact instructor or department for details.	
1205	William Bowerman	Seats (Total: 15)
	Contact instructor or department for details.	
1401	Frank Coale	Seats (Total: 15)
	Contact instructor or department for details.	
1501	Gary Felton	Seats (Total: 15)
	Contact instructor or department for details.	
1508	Reginal Harrell	Seats (Total: 15)
	Contact instructor or department for details.	

1601	Robert Hill Contact instructor or department for details.	Seats (Total: 15)
1801	Patrick Kangas Contact instructor or department for details.	Seats (Total: 15)
1802	Stephanie Lansing Contact instructor or department for details.	Seats (Total: 15)
1803	Paul Leisnham Contact instructor or department for details.	Seats (Total: 15)
1805	Michael Kearney Contact instructor or department for details.	Seats (Total: 15)
2001	Instructor: TBA Contact instructor or department for details.	Seats (Total: 15)
2005	Jennifer Mullinax Contact instructor or department for details.	Seats (Total: 15)
2101	Brian Needelman Contact instructor or department for details.	Seats (Total: 15)
2102	Masoud Negahban-Azar Contact instructor or department for details.	Seats (Total: 15)
2103	Mitchell Pavao-Zuckerman Contact instructor or department for details.	Seats (Total: 15)
2105	Wendy Peer Contact instructor or department for details.	Seats (Total: 15)
2201	Martin Rabenhorst Contact instructor or department for details.	Seats (Total: 15)
2601	David Tilley Contact instructor or department for details.	Seats (Total: 15)
2701	Raymond Weil Contact instructor or department for details.	Seats (Total: 15)
2805	Gurpal Toor Contact instructor or department for details.	Seats (Total: 15)

2905	Stephanie Yarwood Contact instructor or department for details.	Seats (Total: 15)
3001	Lance Yonkos Contact instructor or department for details.	Seats (Total: 15)

ENST689B **Special Topics; Ecology of Plastics**

Credits: 3 Grading Method: Regular, Audit, Sat-Fail

Credit according to time scheduled and organization of the course. Organized as a lecture series on a specialized advanced topic.

This course covers the nature of plastics ranging from chemical composition and production to large-scale aspects of economics, policy, and pollution. The role of plastics in ecosystems is emphasized in lectures and hands-on exercises. Technologies for disposal and recycling of waste plastics are reviewed. The relatively new field of Industrial Ecology provides a context in the course for considering plastics as a product of human systems within the Biosphere. Through literature review and ecological reasoning, the course will challenge some currently-held beliefs about plastics in the environment.

0101	Patrick Kangas TuTh 3:30pm - 4:45pm	Seats (Total: 6) ANS 0538

ENST689Y **Special Topics; Advances in Research, Plant Membrane Biology**

Credits: 2 Grading Method: Regular, Audit, Sat-Fail

Credit according to time scheduled and organization of the course. Organized as a lecture series on a specialized advanced topic.

0101	Wendy Peer, Angus Murphy Contact instructor or department for details.	Seats (Total: 10)

ENST702 **Environmental Science and Technology: Communication and Professional Development**

Credits: 2 Grading Method: Regular, Audit, Sat-Fail

Prerequisite: ENST602. Restriction: Must be in Environmental Science and Technology (Master's) program; or must be in Environmental Science and Technology (Doctoral) program; or permission of instructor.

Training in communication and professional development to prepare students to succeed in careers within the fields of environmental science and technology. Topics will include manuscript and technical writing, job search, communication with academic and non-academic audiences, multi-disciplinary collaboration, management (project, personnel, time), professionalism, leadership, ethics, and career opportunities. Course emphasizes practical training through facilitated discussions and critique practicums.

0101	Brian Needelman	Seats (Total: 12)	
	W 11:00am - 11:50am	ANS 1422	
	F 12:00pm - 2:00pm	ANS 1422	Discussion

ENST789 **Advances in Research**

Credits: 1-4 Grading Method: Regular, Audit, Sat-Fail

A study of recent advances in agronomy research.

Contact department for information to register for this course.

ENST798 **Graduate Seminar**

Credits: 1 Grading Method: Regular, Sat-Fail

Designed to provide a venue for interactive discussion between ENST graduate students and other members of the ENST community regarding thesis/dissertation research planned or conducted as part of the students graduate program.

0101	Martin Rabenhorst, Stephanie Yarwood	Seats (Total: 40)
	W 12:00pm - 12:50pm	ANS 0408

ENST799 **Master's Thesis Research**

Credits: 1-6 Grading Method: Sat-Fail

Contact department for information to register for this course.

ENST898 **Pre-Candidacy Research**

Credits: 1-8 Grading Method: Regular, Sat-Fail

Contact department for information to register for this course.

ENST899 **Doctoral Dissertation Research**

(Perm req)

Credits: 6 Grading Method: Sat-Fail

Contact department for information to register for this course.

ENTM Entomology Spring 2020

ENTM667 **Aquatic Entomology**

Credits: 3 Grading Method: Regular, Sat-Fail

Biology, ecology, and taxonomy of aquatic insects in lotic and lentic habitats, their adaptation to aquatic life, their function in aquatic ecosystems, and their relationship to environmental deterioration.

0101	William Lamp	Seats (Total: 20)	
	W 1:00pm - 1:50pm	PLS 1158	
	W 2:00pm - 5:00pm	PLS 1161	Lab
	F 1:00pm - 3:00pm	PLS 1161	Discussion

ENTM720 **Native, Invasive, and Exotic Species**

Credits: 3 Grading Method: Regular, Sat-Fail

This course will examine introduced species impact, how invasive and exotic species spread, their impact of native species and methods of invasive species control.

PLE1	Magdalene Ngeve	Seats (Total: 8)
	Meets February 27, 2020 - May 20, 2020	
	Class time/details on ELMs	ONLINE
	Restricted to students in the Professional Entomology Program.	

ENTM725 **IPM Practices**

Credits: 3 Grading Method: Regular, Sat-Fail

Introduction to the techniques of integrated pest management for proper pest control management. Integrated Pest Management (IPM) has been the most successful management paradigm for agriculture, forestry, and urban pest management for more than five decades. Students will learn the fundamental elements of IPM programs including recognition and monitoring of key pests, formation of decision-making guidelines, intervention tactics, and fundamentals of assessment.

PLE1	Galen Dively	Seats (Total: 8)
	Meets February 27, 2020 - May 20, 2020	
	Class time/details on ELMs	ONLINE
	Must be in Applied Entomology program. For permission to enroll, must be admitted into a term-based calendar graduate program. Contact oes@umd.edu.	

ENTM788 **Entomological Topics**

Credits: 1-3

Grading Method: Regular, Audit, Sat-Fail

One lecture or one two-hour laboratory period a week for each credit hour. Lectures, group discussions or laboratory sessions on selected topics such as: aquatic insects, biological control of insects, entomological literature, forest entomology, history of entomology, insect biochemistry, insect embryology, immature insects, insect behavior, insect communication, principles of entomological research.

Contact department for information to register for this course.

ENTM788C **Entomological Topics; Colloquium**

Credits: 1-3

Grading Method: Regular, Audit, Sat-Fail

One lecture or one two-hour laboratory period a week for each credit hour. Lectures, group discussions or laboratory sessions on selected topics such as: aquatic insects, biological control of insects, entomological literature, forest entomology, history of entomology, insect biochemistry, insect embryology, immature insects, insect behavior, insect communication, principles of entomological research.

0101	Karin Burghardt	Seats (Total: 55)	
	F 12:00pm - 12:50pm	PLS 1130	
	F 1:00pm - 1:50pm	SPH 1302	Discussion

ENTM798B **Topic Seminar; Writing: the Myth of the Big Chunk of Time**

Credits: 1

Grading Method: Regular, Audit, Sat-Fail

Discussion and presentation of current research and literature.

0101	Kelly Hamby	Seats (Total: 20)
	Th 1:30pm - 3:30pm	PLS 4102

ENTM799 **Master's Thesis Research**

Credits: 1-6 Grading Method: Sat-Fail

Contact department for information to register for this course.

ENTM898 **Pre-Candidacy Research**

Credits: 1-8 Grading Method: Regular, Sat-Fail

Contact department for information to register for this course.

ENTM899 **Doctoral Dissertation Research**

(Perm req)

Credits: 6 Grading Method: Sat-Fail

Contact department for information to register for this course.

ENTS Telecommunications Spring 2020

ENTS625 **Management and Organizational Behavior in the Telecommunications Industry**

Credits: 3 Grading Method: Regular, Audit, Sat-Fail

Roles of the general manager in: determining target markets and designing strategies for them; formulating and implementing corporate and business level strategies; and staffing, developing, and managing human resources and coordinating them with the organization's financial and physical resources. Also emphasizes the building of interpersonal skills with respect to the selection of members for work teams and team formation, leadership of teams toward the achievement of strategic goals and total quality, the development and motivation of team members, and the evaluation of team and individual performance.

Restricted to ENTS majors. All non-majors will need to obtain department permission.

0101	Clarence Wesley	Seats (Total: 40)
	M 5:30pm - 8:15pm	SQH 1105

ENTS630 **The Economics of International Telecommunications**

Credits: 3 Grading Method: Regular, Audit, Sat-Fail

Restriction: Must be in Telecommunications (Master's) program.

Basic microeconomic principles used by telecommunications firms, including supply and demand, elasticity, costs, productivity, pricing, market structure and competitive implications of alternative market structures. Market failures and government intervention. Public policy processes affecting business operations.

Restricted to ENTS majors. All non-majors will need to obtain department permission.

0101	Anand Sharma W 5:30pm - 8:15pm	Seats (Total: 40) ASY 3207

ENTS632 **Telecommunications Marketing Management**

Credits: 3 Grading Method: Regular, Audit, Sat-Fail

Restriction: Must be in Telecommunications (Master's) program.

Topics covered include strategic marketing, sales and customer service challenges confronting organizations in the computer, communications and media industries. The course also addresses volatile technology, regulatory and competitive environments as a backdrop to strategic planning and management in the marketing domain.

Restricted to ENTS majors. All non-majors will need to obtain department permission.

0101	Henry Boyd W 2:00pm - 4:45pm	Seats (Total: 50) TYD 0102

ENTS635 **Decision Support Methods for Telecommunication Managers**

Credits: 3 Grading Method: Regular, Audit, Sat-Fail

Restriction: Must be in Telecommunications (Master's) program.

The aim of this course is to introduce management science techniques for informed decision making. Topics covered can include data analysis and regression, optimization models and applications (workforce scheduling, manufacturing, network design, facility location), sensitivity analysis, decision trees, risk analysis and business simulation models. Emphasis will be on telecommunications managerial problems, model development and the use of software packages for decision support.

Restricted to ENTS majors. All non-majors will need to obtain department permission.

0101	Kazim Ruhi M 2:00pm - 4:45pm	Seats (Total: 40) SQH 1105

ENTS641 **Networks and Protocols II**

Credits: 3 Grading Method: Regular, Audit, Sat-Fail

Prerequisite: ENTS640. Restriction: Must be in Telecommunications (Master's) program.

Techniques for the specification, design, analysis, verification and testing of communication protocols are discussed. The course includes detailed discussion on routing protocols in the Internet. This includes Routing Information Protocol (RIP), Enchanced Interior Gateway Routing Protocol (EIGRP). Open Shortest Path First (OSPF), and Border Gateway Protocol (BGP4).

0101	Mehdi Kalantari Khandani Th 5:30pm - 8:15pm	Seats (Total: 42) EGR 3106	

ENTS649B **Special Topics in Networking; Cloud Computing**

Credits: 3 Grading Method: Regular, Audit, Sat-Fail

Selected topics of current importance in networking.

Click here for more course information.

0101	Ankit Battawar F 5:30pm - 8:15pm	Seats (Total: 30) CSI 2118	

ENTS656 **Introduction to Cellular Communication Networks**

Credits: 3 Grading Method: Regular, Audit, Sat-Fail

Concepts and techniques involved in wireless digital communications with emphasis on cellular and PCS systems. Properties of Mobile radio channels; intersymbol interference, multipath, and fading effects; interleaving and diversity; multiple access schemes (TDMA, FDMA, CDMA); interuser interference, traffic issues, and cell capacity; power control strategies; frequency reuse and channel assignment; handoff, paging, and location update; cell layout; introduction to cellular and PCS standards.

Restricted to ENTS majors.

0101	Michael Dellomo Tu 5:30pm - 8:15pm W 5:30pm - 8:15pm	Seats (Total: 24) CHE 2118 AVW 1458	 Lab
0102	Michael Dellomo Tu 5:30pm - 8:15pm W 2:00pm - 4:45pm	Seats (Total: 24) CHE 2118 AVW 1458	 Lab

ENTS669B **Special Topics in Computing; Distributed Systems in a Virtual Environment**

Credits: 3

Grading Method: Regular, Audit, Sat-Fail

Selected topics of current importance in computing.

Restricted to ENTS majors.

0101	Jeffrey McKinney M 5:30pm - 8:15pm	Seats (Total: 18) AVW 1442

ENTS669D **Special Topics in Computing; Introduction to Machine Learning**

Credits: 3

Grading Method: Regular, Sat-Fail

Selected topics of current importance in computing.

Please click here for further course information.

0101	Sennur Ulukus MW 2:00pm - 3:15pm	Seats (Total: 10) CSI 2117

ENTS669J **Special Topics in Computing; Internet of Things Lab**

Credits: 3

Grading Method: Regular, Audit, Sat-Fail

Selected topics of current importance in computing.

Prerequisites: For ENTS Program students only

0101	Michael Dellomo Th 2:00pm - 4:45pm	Seats (Total: 18) AVW 1458

ENTS699G **Independent Study in Telecommunications; Capstone in Computer Vision & Machine Learning**

Credits: 1-3

Grading Method: Regular, Audit, Sat-Fail

Individual instruction course. See ENTS program office for section number.

Prerequisites: For ENTS Program students only.

0101	Abhinav Shrivastava Contact instructor or department for details.	Seats (Total: 5)

ENTS699M **Independent Study in Telecommunications; Python Programming**

Credits: 1 Grading Method: Regular, Audit, Sat-Fail

Individual instruction course. See ENTS program office for section number.

0101	Michael Dellomo	Seats (Total: 10)
	Contact instructor or department for details.	

ENTS749E **Advanced Topics in Networking; Network Automation**

Credits: 3 Grading Method: Regular, Audit, Sat-Fail

Selected advanced topics in networking.

0101	Zoltan Safar	Seats (Total: 18)
	Tu 9:00am - 11:45am	AVW 1442

ENTS759A **Advanced Topics in Communications; 3G/4G Wireless Networks and Systems**

Credits: 3 Grading Method: Regular, Audit, Sat-Fail

Selected advanced topics in communications.

Restricted to ENTS majors.

0101	Kamran Etemad	Seats (Total: 25)
	M 1:00pm - 3:45pm	ATL 2316

ENTS759B **Advanced Topics in Communications; Wireless OFDM Systems**

Credits: 3 Grading Method: Regular, Audit, Sat-Fail

Selected advanced topics in communications.

Prerequisite: ENTS622. Restricted to ENTS majors.

0101	Alejandra Mercado	Seats (Total: 30)
	Tu 2:00pm - 4:45pm	ITV 1111

EPIB Epidemiology and Biostatistics Spring 2020

EPIB300 **Biostatistics for Public Health Practice**

Credits: 3 | Grading Method: Regular, Pass-Fail, Audit | General Education: FSAR

Prerequisite: Minimum grade of C- in CHEM131 and CHEM132. Restriction: Must be in Public Health Science program; and must have earned a minimum of 60 credits. Credit only granted for: EPIB300, EPIB315 or HLTH300.

An examination of biostatistical concepts and procedures as they relate to contemporary issues in public health. Focus on applications, hands-on-experience, and interpretations of statistical findings in public health research.

As agreed to during your change of major workshop or orientation to PHSC : - PHSC students who declared their major BEFORE the spring 2018 semester are required to take EPIB300 before EPIB301. - PHSC students who declared their major DURING the spring 2018 semester and later are required to take EPIB301 before EPIB315.

0101	Rodman Turpin	Seats (Total: 20)	
	TuTh 11:00am - 11:50am M 8:00am - 9:50am	SPH 1312 SPH 0121	Discussion
	Restricted to College Park students in the Public Health Science major (code: 12140).		
0102	Rodman Turpin	Seats (Total: 20)	
	TuTh 11:00am - 11:50am M 10:00am - 11:50am	SPH 1312 SPH 0121	Discussion
	Restricted to College Park students in the Public Health Science major (code: 12140).		
0103	Rodman Turpin	Seats (Total: 20)	
	TuTh 11:00am - 11:50am M 12:00pm - 1:50pm	SPH 1312 SPH 0121	Discussion
	Restricted to College Park students in the Public Health Science major (code: 12140).		
0104	Rodman Turpin	Seats (Total: 20)	
	TuTh 11:00am - 11:50am M 2:00pm - 3:50pm	SPH 1312 SPH 0121	Discussion
	Restricted to College Park students in the Public Health Science major (code: 12140).		
0105	Rodman Turpin	Seats (Total: 20)	
	TuTh 11:00am - 11:50am F 8:00am - 9:50am	SPH 1312 SPH 0121	Discussion
	Restricted to College Park students in the Public Health Science major (code: 12140).		

0106	Rodman Turpin TuTh 11:00am - 11:50am F 10:00am - 11:50am	Seats (Total: 20) SPH 1312 SPH 0121	 Discussion
	Restricted to College Park students in the Public Health Science major (code: 12140).		

EPIB301 **Epidemiology for Public Health Practice**

Credits: 3 Grading Method: Regular, Pass-Fail

Restriction: Must be in Public Health Science program; or must be in Community Health program. And must have earned a minimum of 45 credits. Cross-listed with HLTH301. Credit only granted for: EPIB301 or HLTH301.

An examination of the discipline of epidemiology and its application to public health issues and practices, covering current epidemiological concepts and methods.

As agreed to during your change of major workshop or orientation to PHSC: - PHSC students who declared their major BEFORE the spring 2018 semester are required to take EPIB300 before EPIB301. - PHSC students who declared their major DURING the spring 2018 semester and later are required to take EPIB301 before EPIB315.

0101	Typhanye Dyer TuTh 2:00pm - 2:50pm M 9:00am - 9:50am	Seats (Total: 20) ESJ 0224 SPH 0116A	 Discussion
	Restricted to College Park students in the Public Health Science major (code: 12140).		
0102	Typhanye Dyer TuTh 2:00pm - 2:50pm M 10:00am - 10:50am	Seats (Total: 20) ESJ 0224 SPH 0116A	 Discussion
	Restricted to College Park students in the Public Health Science major (code: 12140).		
0103	Typhanye Dyer TuTh 2:00pm - 2:50pm M 11:00am - 11:50am	Seats (Total: 20) ESJ 0224 SPH 0116A	 Discussion
	Restricted to College Park students in the Public Health Science major (code: 12140).		
0104	Typhanye Dyer TuTh 2:00pm - 2:50pm M 12:00pm - 12:50pm	Seats (Total: 20) ESJ 0224 SPH 0116A	 Discussion
	Restricted to College Park students in the Public Health Science major (code: 12140).		

0105	Typhanye Dyer TuTh 2:00pm - 2:50pm M 1:00pm - 1:50pm	Seats (Total: 20) ESJ 0224 SPH 0116A	 Discussion
	Restricted to College Park students in the Public Health Science major (code: 12140).		
0106	Typhanye Dyer TuTh 2:00pm - 2:50pm M 2:00pm - 2:50pm	Seats (Total: 20) ESJ 0224 SPH 0116A	 Discussion
	Restricted to College Park students in the Public Health Science major (code: 12140).		
0107	Typhanye Dyer TuTh 2:00pm - 2:50pm M 3:00pm - 3:50pm	Seats (Total: 20) ESJ 0224 SPH 0116A	 Discussion
	Restricted to College Park students in the Public Health Science major (code: 12140).		
0108	Typhanye Dyer TuTh 2:00pm - 2:50pm M 4:00pm - 4:50pm	Seats (Total: 20) ESJ 0224 SPH 0116A	 Discussion
	Restricted to College Park students in the Public Health Science major (code: 12140).		
0201	Typhanye Dyer TuTh 2:00pm - 2:50pm M 10:00am - 10:50am	Seats (Total: 20) ESJ 0224 SPH 0301	 Discussion
	Restricted to students in the Behavioral and Community Health major.		
0202	Typhanye Dyer TuTh 2:00pm - 2:50pm W 3:00pm - 3:50pm	Seats (Total: 20) ESJ 0224 SPH 0301	 Discussion
	Restricted to students in the Behavioral and Community Health major.		
0203	Typhanye Dyer TuTh 2:00pm - 2:50pm M 3:00pm - 3:50pm	Seats (Total: 20) ESJ 0224 SPH 0301	 Discussion
	Restricted to students in the Behavioral and Community Health major.		
ESG1	Bonnie Richter Tu 10:00am - 12:30pm	Seats (Total: 35) BLD2 3022	
	Restricted to Shady Grove students in the Public Health Science major.		

EPIB315 **Biostatistics for Public Health Practice**

Credits: 3 | Grading Method: Regular, Pass-Fail, Audit | General Education: FSAR

Prerequisite: Minimum grade of C- in EPIB301; or must have completed or be concurrently enrolled in HLTH200. Restriction: Must be in one of the following programs (Public Health Science; Community Health). Cross-listed with: HLTH300. Credit only granted for: EPIB300, EPIB315 or HLTH300. Formerly: EPIB300. Additional information: Course is cross-listed; students should check program advising information to determine which counts for their major. Note that EPIB300 (old number) is still offered for students under previous curriculum.

An examination of biostatistical concepts and procedures as they relate to contemporary issues in public health. Focus on applications, hands-on-experience, and interpretations of statistical findings in public health research.

As agreed to during your change of major workshop or orientation to PHSC: - PHSC students who declared their major BEFORE the spring 2018 semester are required to take EPIB300 before EPIB301. - PHSC students who declared their major DURING the spring 2018 semester and later are required to take EPIB301 before EPIB315.

0101	Rodman Turpin TuTh 11:00am - 11:50am M 8:00am - 9:50am	Seats (Total: 20) SPH 1312 SPH 0121	 Discussion
	Restricted to College Park students in the Public Health Science major.		
0102	Rodman Turpin TuTh 11:00am - 11:50am M 10:00am - 11:50am	Seats (Total: 20) SPH 1312 SPH 0121	 Discussion
	Restricted to College Park students in the Public Health Science major.		
0103	Rodman Turpin TuTh 11:00am - 11:50am M 12:00pm - 1:50pm	Seats (Total: 20) SPH 1312 SPH 0121	 Discussion
	Restricted to College Park students in the Public Health Science major.		
0104	Rodman Turpin TuTh 11:00am - 11:50am M 2:00pm - 3:50pm	Seats (Total: 20) SPH 1312 SPH 0121	 Discussion
	Restricted to College Park students in the Public Health Science major.		

0105	Rodman Turpin	Seats (Total: 20)	
	TuTh 11:00am - 11:50am F 8:00am - 9:50am	SPH 1312 SPH 0121	Discussion
	Restricted to College Park students in the Public Health Science major.		
0106	Rodman Turpin	Seats (Total: 20)	
	TuTh 11:00am - 11:50am F 10:00am - 11:50am	SPH 1312 SPH 0121	Discussion
	Restricted to College Park students in the Public Health Science major.		
0201	Rodman Turpin	Seats (Total: 20)	
	TuTh 11:00am - 11:50am M 4:00pm - 5:50pm	SPH 1312 SPH 0121	Discussion
	Restricted to students in the Behavioral and Community Health major.		
0202	Rodman Turpin	Seats (Total: 20)	
	TuTh 11:00am - 11:50am M 1:00pm - 2:50pm	SPH 1312 SPH 0301	Discussion
	Restricted to students in the Behavioral and Community Health major.		

EPIB399 **Epidemiology and Biostatistics Independent Study**

Credits: 1-3 Grading Method: Regular, Pass-Fail

The EPIB undergraduate independent study is an opportunity for undergraduates from other departments in the SPH or the university to work with an Epidemiology and Biostatistics faculty member on research or special projects that are based out of EPIB.

Contact department for information to register for this course.

EPIB463 **Introduction to Biostatistical Programming**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

An introduction to basic programming principles; data analysis tasks such as the calculation of summary statistics and the creation of graphs; and the implementation of statistical analysis concepts such as T-tests, ANOVA and correlation. Querying and managing data sets using SQL in SAS will also be covered.

0101	Raul Cruz-Cano	Seats (Total: 35)	
	TuTh 9:30am - 10:45am	JMP 1202	
	Restricted to College Park students in the Public Health Science major (code: 12140).		

EPIB611 **Intermediate Epidemiology**

(Perm req)

Credits: 3

Grading Method: Regular, Audit, Sat-Fail

Prerequisite: 1 course with a minimum grade of B- from (SPHL602, EPIB610); or a minimum score of 70% on the SPHL602 or EPIB610 waiver exam.

Analysis of epidemiologic methods as applied to epidemiologic research, analysis of bias, confounding, effect modification issues, overview of design, implementation, and analysis of epidemiologic studies.

0101	Cher Dallal	Seats (Total: 20)
	Th 4:00pm - 6:45pm	SPH 0307

EPIB651 **Applied Regression Analysis**

(Perm req)

Credits: 3

Grading Method: Regular, Audit, Sat-Fail

Prerequisite: 1 course with a minimum grade of B- from (SPHL602, EPIB650); or a minimum score of 70% on the SPHL602 or EPIB650 waiver exam. Recommended: EPIB697 or previous experience working with SAS is highly recommended.

An introduction to important statistical methods used in public health research, including nonparametric hypothesis testing, ANOVA, simple and multiple linear regression, logistic regression, and categorical data analysis.

0101	Xin He	Seats (Total: 20)
	Tu 4:00pm - 6:45pm	SPH 0305

EPIB653 **Applied Survival Data Analysis**

(Perm req)

Credits: 3

Grading Method: Regular, Audit, Sat-Fail

Prerequisite: EPIB651.

Overview of statistical methods for anlayzing censored survival data, including the Kaplan-Meier estimator, the log-rank test, Cox PH model.

0101	Mei-Ling Lee	Seats (Total: 20)
	W 1:00pm - 3:45pm	SPH 0302

EPIB654 **Clinical Trials: Design and Analysis**

Credits: 3

Grading Method: Regular, Audit, Sat-Fail

Prerequisite: EPIB650 or SPHL602, and EPIB651; or permission of instructor.

This course provides an introduction to the clinical trials design and data analysis. Topics covered include: history/background and process for clinical trial, key concepts for good statistics practice (GSP)/good clinical practice (GCP), regulatory requirement for pharmaceutical/clinical development, basic considerations for clinical trials, designs for clinical trials, classification of clinical trials, power analysis for sample size calculation for different designs, statistical analysis for efficacy evaluation, statistical analysis for safety assessment, implementation of a clinical protocol, statistical analysis plan, data safety monitoring, adaptive design methods in clinical trials (general concepts, group sequential design, dose finding design, and phase I/II or phase II/III design) and controversial issues in clinical trials.

0101	Mei-Ling Lee	Seats (Total: 20)
	M 4:00pm - 6:45pm	SPH 0302

EPIB661 **Applied Multivariate Data Analysis**

Credits: 3

Grading Method: Regular, Audit, Sat-Fail

Prerequisite: Must have completed EPIB651 or permission of instructor. Recommended: Previous experience with at least one statistical software package (e.g. SAS, R, STATA). SAS is the main software package used for demonstration in class.

Multivariate analysis targets data with simultaneous measurements on many variables and studies the relationship between these variables. This course introduces important multivariate analysis methods used in public health research. Topics include multivariate regression analysis, multivariate analysis of variance (MANOVA), principal component analysis (PCA), factor analysis, discriminant analysis (classification), clustering analysis, canonical correlation analysis (CCA) and correspondence analysis (CA).

0101	Tianzhou Ma	Seats (Total: 20)
	M 1:00pm - 3:45pm	SPH 0302

EPIB778 **Internship in Public Health**

(Perm req)

Credits: 1-4

Grading Method: Regular, Sat-Fail

Internship and seminar providing an opportunity to apply previously acquired knowledge and skills in a health or allied health organization. Setting of the internship will depend upon the student's background and career goals.

Contact department for information to register for this course.

EPIB785 **Internship in Public Health**

(Perm req)

Credits: 1-3 Grading Method: Regular, Sat-Fail

Prerequisite: Permission of SPHL-Epidemiology & Biostatistics department. Repeatable to 3 credits.

Internship and seminar providing an opportunity to apply previously acquired knowledge and skills in a health or allied health organization. Setting of the internship will depend upon the student's background and career goals.

Contact department for information to register for this course.

EPIB786 **Capstone Project in Public Health**

(Perm req)

Credits: 3 Grading Method: Regular, Audit, Sat-Fail

Prerequisite: Permission of SPHL-Epidemiology & Biostatistics department.

Capstone experience providing opportunity to apply knowledge and skills to a specific public health problem or issue. Completion of project relevant to public health under the direction of an advisor.

Contact department for information to register for this course.

EPIB798 **Independent Study**

(Perm req)

Credits: 1-6 Grading Method: Regular, Audit, Sat-Fail

Master or doctoral students who desire to pursue special research problems under the direction of a faculty memeber of the department may register for 1-6 hours of credit under this number.

Contact department for information to register for this course.

EPIB799 **Master's Thesis Research**

(Perm req)

Credits: 1-6 Grading Method: Sat-Fail

Contact department for information to register for this course.

EPIB898 **Pre-Candidacy Research**

(Perm req)

Credits: 1-8 Grading Method: Regular, Sat-Fail

Contact department for information to register for this course.

EPIB899 **Doctoral Dissertation Research**

(Perm req)

Credits: 6 Grading Method: Sat-Fail

Contact department for information to register for this course.

FGSM Federal and Global Fellows Spring 2020

FGSM398 **Federal and Global Experiential Learning**

Credits: 3-9 | Grading Method: Regular, Pass-Fail, Audit | General Education: DSSP

This is the experiential course component of the Federal Fellows Program and Global Fellows Program.

0101	Nazanine Beyranvand, Joan Burton, Jayakumar Arasan M 6:30pm - 7:40pm	Seats (Total: 75) TWS 1310
0201	Nazanine Beyranvand, Joan Burton, Jayakumar Arasan Th 6:30pm - 7:40pm	Seats (Total: 75) TWS 1310

FILM Film Studies Spring 2020

FILM245 **Film Form and Culture**

Credits: 3 | Grading Method: Regular, Pass-Fail, Audit | CORE: HA | General Education: DSHU

Cross-listed with ENGL245. Credit only granted for: ENGL245 or FILM245.

Introduction to film as art form and how films create meaning. Basic film terminology; fundamental principles of film form, film narrative, and film history. Examination of film technique and style over past one hundred years. Social and economic functions of film within broader institutional, economic, and cultural contexts.

Restriction: Must not have completed ENGL245 or FILM245. Also offered as: ENGL245. Credit only granted for: CMLT214, CMLT245 or FILM 245. Formely: CMLT214."

0201	Jeffrey Moro TuTh 2:00pm - 3:15pm	Seats (Total: 30) TWS 0320
0301	Dominique Young TuTh 11:00am - 12:15pm	Seats (Total: 30) TWS 0320
0401	Paul Cote TuTh 11:00am - 12:15pm	Seats (Total: 30) TWS 0221

FILM298D **Special Topics in International Film Studies; Film Art in a Global Society**

Credits: 3

Grading Method: Regular, Pass-Fail

Special topics in International Film.

Cross-listed with CMLT280. Credit only granted for: CMLT280 or FILM298D.

0101	Luka Arsenjuk MW 1:00pm - 1:50pm F 12:00pm - 12:50pm	Seats (Total: 25) TWS 0320 TWS 0236	Discussion
0102	Luka Arsenjuk MW 1:00pm - 1:50pm F 1:00pm - 1:50pm	Seats (Total: 25) TWS 0320 TWS 1107	Discussion
0103	Luka Arsenjuk MW 1:00pm - 1:50pm F 11:00am - 11:50am	Seats (Total: 25) TWS 0320 TWS 0236	Discussion
0104	Luka Arsenjuk MW 1:00pm - 1:50pm F 1:00pm - 1:50pm	Seats (Total: 25) TWS 0320 TWS 0221	Discussion

FILM302 **Cinema History II: The Sound Era**

(Perm req)

Credits: 3

Grading Method: Regular, Pass-Fail, Audit

Prerequisite: ENGL245, FILM245, SLLC283, or FILM283. Restriction: Must have permission of the Film Studies program.

Introduction to the international history of cinema from sound around 1930 to the present.

0101	Luka Arsenjuk MW 3:30pm - 4:45pm	Seats (Total: 30) ESJ B0322	

FILM319E **Special Topics in Documentary, Animation, Experimental Cinema, and Other Visual Media; Experimental Cinema**

Credits: 3

Grading Method: Regular, Pass-Fail, Audit

Examine the possibilities of non-narrative cinema, or cinema that is structured differently from the fiction feature film, as well as other media (television, digital imagery, and photography) that entertain a close relationship with cinema in terms of form, content, and audience. Content varies.

0101	Eric Zakim TuTh 9:30am - 10:45am	Seats (Total: 30) ESJ B0322

FILM329N **Special Topics in National/International Cinemas; Politics and Memory on Screen: A History of Latin American Cinema**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Examine one or more national cinematic traditions (including Hollywood cinema), or may look across traditions comparatively, for example at international and/or transnational phenomena. Content varies.

Prerequisites: ENGL245, FILM245, SLLC283, or FILM283; or permission of instructor

0101	Daniel Richter W 3:30pm - 4:45pm Class time/details on ELMs	Seats (Total: 30) SQH 1101 ONLINE

FILM332 **Brazilian Cinema**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit General Education: DSHU

Cross-listed with PORT332. Credit only granted for: PORT332, FILM332, or PORT378. Formerly: PORT378.

Brazilian films from the late 1950s to the present with a special view to the relationship between cinema, society, historical dates, and social changes in Brazil. Taught in English.

0101	Regina Igel TuTh 12:30pm - 1:45pm	Seats (Total: 20) JMZ 0118

FILM359E **Special Topics in Genres/Auteurs/Cinema Movements; Hollywood in the Golden Age, 1930-1950**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Examine narrative cinema from the perspective of content (themes, issues, structures) and style through the lens of genre, auteurship (a concept of authorship in film studies), and/or historical aesthetic movements that have been influential in the development of cinema as an art and film studies as a field. Content varies.

Prerequisite: ENGL245, FILM245, SLLC283, or FILM283; or permission of instructor.

0101	Marianne Conroy TuTh 11:00am - 12:15pm	Seats (Total: 30) ESJ B0322

FILM359O **Special Topics in Genres/Auteurs/Cinema Movements; New Wave Cinemas of the Soviet Bloc**

Credits: 3

Grading Method: Regular, Pass-Fail, Audit

Examine narrative cinema from the perspective of content (themes, issues, structures) and style through the lens of genre, auteurship (a concept of authorship in film studies), and/or historical aesthetic movements that have been influential in the development of cinema as an art and film studies as a field. Content varies.

Also offered as RUSS398D.

0101	Elizabeth Papazian	Seats (Total: 20)
	MW 12:00pm - 1:50pm	ESJ B0322

FILM359R **Special Topics in Genres/Auteurs/Cinema Movements; Cinema and Religion**

Credits: 3

Grading Method: Regular, Pass-Fail, Audit

Examine narrative cinema from the perspective of content (themes, issues, structures) and style through the lens of genre, auteurship (a concept of authorship in film studies), and/or historical aesthetic movements that have been influential in the development of cinema as an art and film studies as a field. Content varies.

Crosslisted with RELS319G. Credit only granted for FILM359R or RELS319G.

0101	Eric Zakim	Seats (Total: 30)
	TuTh 12:30pm - 1:45pm	ESJ B0322

FILM369A **Special Topics in Film Theories; Post-War Film Theory**

Credits: 3

Grading Method: Regular, Pass-Fail, Audit

Examines specific methodologies (structuralism, feminism, postcolonialism, etc.) for the critical analysis of film. The course will also consider the historical development of theoretical concepts. Content varies.

0101	Mauro Resmini	Seats (Total: 25)
	TuTh 2:00pm - 3:15pm	ESJ B0322

FILM388 **Experiential Learning: Film Studies**

(Perm req)

Credits: 1-3

Grading Method: Regular, Pass-Fail

Connects students' theoretical understanding of film studies, as obtained through the classroom, to professional experience.

Contact department for information to register for this course.

FILM412 **Animation and Cinema**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Prerequisite: ENGL245, FILM245, SLLC283, or FILM283; or permission of ARHU-College of Arts & Humanities. Credit only granted for: FILM412 or ENGL468C.

An examination of animation in art, cinema, and other media.

0101	Oliver Gaycken	Seats (Total: 25)
	MW 2:00pm - 3:15pm	TWS 0236

FILM429L **Special Topics in National/International Cinemas; Contemporary Transnational Chinese Cinemas and Art**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Courses in National/International Cinemas may examine one or more national cinematic traditions (including Hollywood cinema), or may look across traditions comparatively, for example at international and/or transnational phenomena. Content varies.

Also offered as ARTH488X. Through critical screenings, viewings, readings, and discussions, we will examine cinemas and art by directors and artists in Greater China (PRC, Taiwan, Hong Kong), "cultural China," and the Chinese diaspora. Students will consider representative works by directors such as Ang Lee , Ann Hui, Chen Kaige, Feng Xiaogang, Hou Hsiao-hsien, Wong Kar-wai, and Zhang Yimou, and artists such as Ai Weiwei, Cao Fei, Gao Xingjian, Gu Wenda, and Xu Bing, as a way to cross-examine the concepts of the contemporary and the transnational.

0101	Jason Kuo	Seats (Total: 12)
	Tu 2:00pm - 4:30pm	ASY 4213A

FILM441 **Italian Cinema I: Neorealism**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Cross-listed with ITAL436. Credit only granted for: FILM441 or ITAL436.

Explores representations of Italy in cinema with special focus on identity formation and the movement of Italian neorealism and post neorealism. Taught in English.

0101	Mauro Resmini TuTh 3:30pm - 4:45pm	Seats (Total: 25) ESJ B0322
SA45	Lindsey Sitler Contact instructor or department for details.	Seats (Total: 0)

FILM499 **Directed Study in Film Studies**

(Perm req)

Credits: 1-3 Grading Method: Regular, Pass-Fail, Audit

Readings and Research in Film Studies under faculty supervison.

Contact department for information to register for this course.

FIRE First-Year Innovation & Research Experience Spring 2020

FIRE198 **FIRE SEMESTER 2**

Credits: 2 Grading Method: Regular, Pass-Fail

This is the second course in the FIRE (First-Year Innovation & Research Experience) program sequence.Students in this course join a research stream and gain discipline-specific training in that lab. This course focuses on the concepts related to the process of independent research including collaboration with peers, communication of ideas, troubleshooting unexpected outcomes, and discipline-specific methodologies.

FIRE students interested in joining a stream must enroll in that stream's corresponding section of FIRE198.

0101	Thanicha Ruangmas Tu 11:00am - 11:50am Contact instructor or department for details. *Sustainability Analytics*	Seats (Total: 40) ATL 2339
0102	Carolina Vieira W 12:00pm - 12:50pm Contact instructor or department for details. *Found in Translation*	Seats (Total: 38) ATL 2339
0104	Cristina Risco W 3:00pm - 3:50pm Contact instructor or department for details. *Addiction Science*	Seats (Total: 38) ATL 2339

0105	Yun Choi W 4:00pm - 4:50pm Contact instructor or department for details. *Transgenerational Brain Initiative*	Seats (Total: 38) ATL 2339
0106	Molly Goodfellow Th 11:00am - 11:50am Contact instructor or department for details. *Animal and Human Relationships - Human Relationships Research Team*	Seats (Total: 20) ATL 2339
0107	Molly Goodfellow Th 11:00am - 11:50am Contact instructor or department for details. *Animal and Human Relationships - Animal Relationships Research Team*	Seats (Total: 15) ATL 2339
0108	Derrick Yeo Tu 3:30pm - 4:20pm Contact instructor or department for details. *Autonomous Unmanned Systems*	Seats (Total: 40) ATL 2339
0109	Jonathan Goodson Th 12:30pm - 1:20pm Contact instructor or department for details. *Transcriptomics of Disease*	Seats (Total: 40) ATL 2339
0111	Kyungjin Yoo Th 3:30pm - 4:20pm Contact instructor or department for details. *Phillips Virtual Culture*	Seats (Total: 40) ATL 2339
0112	Raymond Tu W 2:00pm - 2:50pm Contact instructor or department for details. *Capital One Machine Learning*	Seats (Total: 40) ATL 2339
0113	Catherine Spirito W 10:00am - 10:50am Contact instructor or department for details. *Engineering Biosensors*	Seats (Total: 38) ATL 2339

0114	Cherisse Hall Th 2:00pm - 2:50pm Contact instructor or department for details. *Bacterial Pathogenesis*	Seats (Total: 38) ATL 2339
0115	Benjamin Huffman Th 9:30am - 10:20am Contact instructor or department for details. *Global Development & Design*	Seats (Total: 40) ATL 2339
0116	Muge Karagoz Tu 2:00pm - 2:50pm Contact instructor or department for details. *Simulating Particle Detection*	Seats (Total: 40) ATL 2339
0117	Alexandra Jones W 1:00pm - 1:50pm Contact instructor or department for details. *Cloud Computing*	Seats (Total: 25) ATL 2339
0118	Jessica O'Hara W 11:00am - 11:50am Contact instructor or department for details. *Host-Pathogen Interactions*	Seats (Total: 38) ATL 2339

FMSC Family Science Spring 2020

FMSC110 **Families and Global Health**

Credits: 3 | Grading Method: Regular, Pass-Fail | General Education: DSHS, DVCC

Students will explore, define, and study global health, social determinants of health, health inequalities, gender inequality, family violence, and maternal and child health using a global perspective.

0101	Laura Drew TuTh 9:30am - 10:45am	Seats (Total: 50) CHE 2118

FMSC170 **Modern Families**

Credits: 3 | Grading Method: Regular, Pass-Fail, Audit | General Education: DSHS, SCIS

Credit only granted for: FMSC170 or FMSC298F. Formerly: FMSC298F.

Examination of current trends and controversial issues in family life, including issues of marriage, reproductive technologies, adoption, child custody, remarriage, and marital violence.

0101	Elise Resnick	Seats (Total: 50)
	Th 3:30pm - 6:00pm	SPH 1302

FMSC260 **Couple Relationships**

Credits: 3 | Grading Method: Regular, Pass-Fail, Audit | General Education: DSHS

Credit only granted for: FMSC260 or FMST260. Formerly: FMST260.

Couple relationships and their alternatives in contemporary dating, courtship and marriage.

Restricted to majors or non-majors with less than or equal to 60 credits.

0101	Elise Resnick	Seats (Total: 60)
	TuTh 11:00am - 12:15pm	SPH 1301

FMSC290 **Family Economics**

Credits: 3 | Grading Method: Regular, Pass-Fail, Audit

Credit only granted for: FMSC290 or FMST290. Formerly: FMST290.

Application of economic methodology to study families under various economic situations. Examination of how decisions about marriage, divorce, fertility, consumption and time use are influenced by labor/housing markets, tax structure, social welfare benefits and other economic considerations.

Restricted to majors or non-majors with less than or equal to 60 credits.

0101	Manouchehr Mokhtari	Seats (Total: 60)
	TuTh 5:00pm - 6:15pm	SPH 1312

FMSC302 **Research Methods in Family Science**

(Perm req)

Credits: 3 | Grading Method: Regular, Pass-Fail, Audit | General Education: DSHS, DSSP

Prerequisite: Must have completed an introductory statistics course. Restriction: Must be in a major within SPHL-Family Science department. Credit only granted for: FMSC302 or FMST302. Formerly: FMST302.

Introduction to the methods of the social and behavioral sciences employed in family science. The role of theory, the development of hypotheses, measurement, design, and data analysis.

0101	Jessica Fish TuTh 9:30am - 10:45am	Seats (Total: 70) SPH 1303

FMSC310 **Maternal, Child and Family Health**

Credits: 3 Grading Method: Regular, Pass-Fail

Credit only granted for: FMSC310, FMSC410 or FMSC498A. Formerly: FMSC498A and FMSC410. Additional information: A comprehensive understanding of maternal, child, and family health, with additional emphasis on environmental health, needs assessment and evaluation, enabling students to more effectively address issues in the workplace.

Overview of the major issues in Maternal, Child, and Family Health in the U.S. and the world. The course will cover the social, political, environmental, and economic factors that shape the health of women, children, and families throughout the life course. It will employ the core disciplines of public health -- 1) epidemiology/biostatistics, 2) environmental health, 3) health policy and administration, and 4) social and behavioral health -- to examine these factors. The course introduces specific issues and interventions and places these issues and interventions within their broad sociohistorical context.

0101	Edmond Shenassa TuTh 12:30pm - 1:45pm	Seats (Total: 40) SPH 1312
0201	Julia Steinberg TuTh 11:00am - 12:15pm	Seats (Total: 40) SPH 0302
0301	Naheed Ahmed MWF 10:00am - 10:50am	Seats (Total: 40) SPH 0302
0401	Marie Thoma MWF 11:00am - 11:50am	Seats (Total: 40) SPH 1301

FMSC330 **Family Theories and Patterns**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit General Education: DSHS, DVUP

Restriction: Junior standing or higher. Credit only granted for: FMSC330 or FMST330. Formerly: FMST330.

Theory and research on the family, including a cross-cultural analysis of family patterns.

0101	Patricia Fanflik MWF 8:00am - 8:50am	Seats (Total: 50) SPH 0302

0301	Samuel Allen TuTh 12:30pm - 1:45pm	Seats (Total: 55) SPH 1301

FMSC332 **Children in Families**

Credits: 3 | Grading Method: Regular, Pass-Fail, Audit | General Education: DSHS

Prerequisite: PSYC100 or FMSC105. Credit only granted for: FMSC332 or FMST332. Formerly: FMST332.

A family life education approach to the study of children and families. Emphasis on the interaction of children with parents, siblings, extended kin, and the community.

0101	Amy Lewin TuTh 9:30am - 10:45am	Seats (Total: 50) SPH 1302
0201	Amy Lewin TuTh 12:30pm - 1:45pm	Seats (Total: 50) SPH 0302
0301	Christine Schull MW 9:00am - 9:50am Class time/details on ELMs	Seats (Total: 50) SPH 1302 ONLINE

FMSC341 **Personal and Family Finance**

Credits: 3 | Grading Method: Regular, Pass-Fail, Audit | General Education: DSSP

Credit only granted for: FMSC341 or FMST341. Formerly: FMST341.

Individual and family financial strategies with emphasis on financial planning, savings, investments, insurance, income taxes, housing, and use of credit. Planning, analyzing, and controlling financial resources to resolve personal/family financial problems and to attain financial security.

0101	Manouchehr Mokhtari TuTh 6:30pm - 7:45pm	Seats (Total: 55) SPH 1312

FMSC381 **Poverty, Affluence, and Families**

Credits: 3 | Grading Method: Regular, Pass-Fail , D | General Education: DSHS, DVUP

Prerequisite: SOCY100 or SOCY105. Restriction: Must be in a major within SPHL-Family Science department. Credit only granted for: FMSC381 or FMST381. Formerly: FMST381.

Social, political, cultural and economic factors influencing income and wealth in American families.

0101	Izidora Skracic MWF 9:00am - 9:50am	Seats (Total: 60) SPH 1301
0201	Laura Golojuch TuTh 3:30pm - 4:45pm	Seats (Total: 60) SPH 1301

FMSC383 **Delivery of Human Services to Families**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Prerequisite: FMSC330. Restriction: Must be in a major within SPHL-Family Science department. Credit only granted for: FMSC383 or FMST383. Formerly: FMST383.

Processes of service delivery with special emphasis upon relationships among managers, service providers and clients. The impact of human service systems on families.

0101	Ghaffar Hurtado Choque MWF 11:00am - 11:50am	Seats (Total: 65) SPH 1303

FMSC399 **Independent Study**

(Perm req)

Credits: 1-6 Grading Method: Regular, Pass-Fail, Audit

Contact department for information to register for this course.

FMSC420 **African American Families**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Recommended: FMSC330. Credit only granted for: FMSC420 or FMSC498F. Formerly: FMSC498F.

Examination of the history, structure, cultural foundation, and diversity of African American family life is the focus of this class. Presentations and discussions enable students to identify, analyze, and assess: (1) the major theoretical perspectives used in the study of African American families; (2) the impact of social policy on African American families; and (3) specific areas of family life (e.g., marriage and divorce, parenting, child development, health disparities).

0101	Mia A Smith-Bynum TuTh 9:30am - 10:45am	Seats (Total: 45) SPH 1301

FMSC431 **Family Crises, Emergencies and Interventions**

Credits: 3

Grading Method: Regular, Pass-Fail, Audit

Prerequisite: PSYC100.

Examines the stressors in life that may lead families into a state of crisis or emergency and what can be done to help families when the need arises. Both internal stressors, such as substance abuse, finances, divorce, illness or parent-child conflict, and external stressors, such as community violence and natural disasters, are examined. Using theories and techniques for intervention and enhancement, the course examines factors involved in stressors turning into a family crisis and how factors such as emergency preparedness, social support and public policy can be a source of family resilience or protect families from negative outcomes.

0101	Shy Porter TuTh 2:00pm - 3:15pm	Seats (Total: 50) SPH 1312

FMSC432 **Adult Development and Aging in Families**

(Perm req)

Credits: 3

Grading Method: Regular, Pass-Fail, Audit

Prerequisite: PSYC100; and (SOCY100 or SOCY105). And FMSC332; or must have completed a comparable development course. Restriction: Must be in a major within SPHL-Family Science department. Credit only granted for: FMSC432 or FMST432. Formerly: FMST432.

Theory, research, history, and programming related to adult development and aging in the intergenerational context of family.

0301	Jessica Fish MW 11:00am - 12:15pm	Seats (Total: 45) SPH 1302

FMSC460 **Violence in Families**

Credits: 3

Grading Method: Regular, Pass-Fail, Audit

General Education: DSHS, DVUP

Prerequisite: SOCY100, SOCY105, or PSYC100. Credit only granted for: FMSC460 or FMST460. Formerly: FMST460.

Theories of child, spouse, and elder abuse in the family setting. Emphasis on historical, psychological, sociological and legal trends relating to physical, emotional, and sexual abuse. Introduction to methods for prevention and remediation.

0101	Christine Schull MW 10:00am - 10:50am F 10:00am - 10:50am	Seats (Total: 56) SPH 1301 ONLINE

FMSC477 **Internship and Analysis in Family Science**

(Perm req)

Credits: 3

Grading Method: Regular, Pass-Fail

Prerequisite: FMSC383; and 9 credits in FMSC courses; and permission of SPHL-Family Science department. Restriction: Must be in a major within SPHL-Family Science department. Credit only granted for: FMSC477, FMST347, or FMST477. Formerly: FMST477.

A supervised internship and a seminar requiring analysis. Opportunities to integrate theory and practice including 120 hours of contracted field experience. Summer or fall internship contracts due May 1; Spring contracts due December 1. See department for application procedures.

Click here for Application Deadlines and additional details..

0101	Ashley Pantaleao	Seats (Total: 100)
	W 3:30pm - 5:00pm	KEB 1110
	Contact instructor or department for details.	

FMSC485 **Introduction to Family Therapy**

Credits: 3

Grading Method: Regular, Pass-Fail, Audit

Prerequisite: FMSC330; or 1 course from PSYC300-499 course range. Credit only granted for: FMSC485 or FMST485. Formerly: FMST485.

The fundamental theoretical concepts and clinical procedures of marital and family therapy including premarital and divorce therapy issues.

0101	Patricia Barros	Seats (Total: 45)
	Th 12:30pm - 3:00pm	Location: TBA

FMSC487 **Family Law**

Credits: 3

Grading Method: Regular, Pass-Fail, Audit

Designed for students interested in studying the law, public health, and family science, this course provides students with a general overview of family law and the impact on healthy families. The course also includes the study of cutting-edge issues such as marriage equality, assisted reproduction and ethical issues that may arise.

0101	Kerry Tripp	Seats (Total: 45)
	TuTh 11:00am - 12:15pm	SPH 1302

FMSC498 **Special Topics: Family Science; Family Studies**

(Perm req)

Credits: 1-3

Grading Method: Regular, Pass-Fail

Special course topics in family studies.

Contact department for information to register for this course.

FMSC498A **Special Topics: Family Science; Making a Difference: Child and Family Policy Advocacy**

Credits: 3

Grading Method: Regular, Pass-Fail, Audit

Special course topics in family studies.

Cross-listed with FMSC498A. Credit only granted for PLCY388A or FMSC498A. Advocates for children and families have accomplished a great deal over the years. They have reduced hunger, expanded access to health care, created safer communities and families, and worked to reduce inequities in education quality and resources. But so much more remains to be done to ensure social justice and equity for all children,youth and families. This course will concentrate on developing advocacy skills, including b uilding coalitions and agendas, activating grassroots, creating message strategies and writing Op Eds, among other ways advocates advance their causes.

0101	Adele Robinson	Seats (Total: 24)
	TuTh 11:00am - 12:15pm	SQH 1123

FMSC498H **Special Topics: Family Science; Family Studies Honors Thesis**

(Perm req)

Credits: 1-3

Grading Method: Regular, Pass-Fail, Audit

Special course topics in family studies.

Contact department for information to register for this course.

FMSC498M **Special Topics: Family Science; Theory and Techniques of Family Mediation**

Credits: 3

Grading Method: Regular, Pass-Fail, Audit

Special course topics in family studies.

Introduction to family mediation as an approach to helping families deal effectively with the issues associated with separation and divorce. Theory, practice, and techniques of negotiation, with an emphasis on custody, property division, and constructive restructuring of family relationships.

0101	Kerry Tripp	Seats (Total: 35)
	Th 12:30pm - 3:00pm	SPH 1302

FMSC610 **Research Methods in Family Science**

(Perm req)

Credits: 3

Grading Method: Regular, Audit, Sat-Fail

Prerequisite: EDMS645; or students who have taken courses with comparable content may contact the department. Credit only granted for: FMSC610 or FMST610. Formerly: FMST610.

Research methods in family science. The role of theory, design, use of qualitative and quantitative measurement techniques, data collection and data analysis. Development of research proposals.

0101	Mona Mittal	Seats (Total: 15)
	Th 1:00pm - 3:45pm	Location: TBA

FMSC612 **Reproductive and Perinatal Epidemiology**

Credits: 3

Grading Method: Regular, Sat-Fail

Prerequisite: Must have completed a graduate course in epidemiology with a B- or higher.

Focuses on current research, controversial issues and methodological problems in the epidemiology of reproductive and perinatal health. Includes a critical review in the broader context of reproductive and perinatal health within families and communities.

0101	Marie Thoma	Seats (Total: 15)
	Th 1:00pm - 3:45pm	Location: TBA

FMSC641 **Couples Therapy, Theory, and Techniques**

(Perm req)

Credits: 3

Grading Method: Regular, Sat-Fail

Prerequisite: FMSC640. Credit only granted for: FMSC641 or FMSC641. Formerly: FMST641.

Overview of theoretical models of couple relationships and methods of facilitating growth and interaction within those relationships. Emphasis on couples with conflicting needs and expectations, and dysfunctional communication and conflict negotiation skills.

0101	Mariana Falconier	Seats (Total: 15)
	Th 9:00am - 11:45am	Location: TBA

FMSC647 **Theory and Techniques of Family Mediation**

Credits: 3

Grading Method: Regular, Audit, Sat-Fail

Credit only granted for: FMSC647 or FMST647. Formerly: FMST647.

An introduction to family mediation as an approach to helping families deal effectively with the issues associated with separation and divorce. Theory, practice, and techniques of negotiation, with an emphasis on custody, property division, and the constructive restructuring of family relationships.

0101	Kerry Tripp	Seats (Total: 35)
	Th 12:30pm - 3:00pm	SPH 1302

FMSC651 **Psychopathology in the Family Context**

(Perm req)

Credits: 3 Grading Method: Regular, Audit, Sat-Fail

Prerequisite: FMSC650. Restriction: Must be in Couple and Family Therapy (Master's) program.

This course is designed to assist beginning therapists in developing their knowledge of the major theoretical approaches to family therapy and applying those approaches to their clinical work. In addition, the course addresses many procedural, professional, and ethical issues often faced by beginning therapists. Towards these ends, the primary foci of the course will be on developing competencies in (a) observing family process, (b) assessing and conceptualizing family strengths and problems from different theoretical models, and (c) developing treatment plans from these different theoretical models. Finally, attention will also be given to therapist self-care.

0101	Leigh Leslie	Seats (Total: 15)
	Tu 9:00am - 11:45am Contact instructor or department for details.	Location: TBA

FMSC653 **Advanced Application of MFT Models and Techniques**

(Perm req)

Credits: 3 Grading Method: Regular, Audit, Sat-Fail

Prerequisite: FMSC652. Restriction: Must be in Couple and Family Therapy (Master's) program.

This course is an integration of advanced assessment, diagnosis, and treatment procedures with couples, families, individuals, and groups. Emphasis will be on the following areas: (1) the advanced study of classic and emerging CFT models; (2) special topic areas (e.g., trauma, religious differences, grief & loss, family rituals,) and/or collaborative CFT in varied settings (e.g., schools, medical facilities, in-home/family preservation work, foster care, alcohol & drug centers); (3) development of a personal theory/philosophy of family therapy along with a case management system for that model. Additionally, development of the self of therapist, contributions to CFT as a profession, and employment as well as independent practice information including resume development, licensing laws and regulations in Maryland and other states will be explored. Also, procedures for preparing for the National MFT licensing exam will be discussed. Advanced professional practice will be demonstrated in case presentations related to the specific areas emphasized in the course.

0101	Patricia Barros Tu 9:00am - 11:45am Contact instructor or department for details.	Seats (Total: 15) Location: TBA

FMSC658 **Supervised Clinical Practice of Marriage and Family Therapy; Theory and Practice of Clinical Supervision**

(Perm req)

Credits: 1-3

Grading Method: Regular, Audit, Sat-Fail

This course is designed to provide supervision of family, couple, and individual therapy client contact. This course is limited to, and required of, all students admitted to the Couples and Family Therapy (CFT) Program. Supervision utilizes various family systems models and differing methods are employed.

0101	Mona Mittal W 9:00am - 11:45am	Seats (Total: 20) Location: TBA

FMSC689 **Research Internship**

(Perm req)

Credits: 3

Grading Method: Regular, Sat-Fail

Research experience resulting in a scholarly article suitable for publication in a peer-reviewed journal.

Contact department for information to register for this course.

FMSC698 **Advanced Topics in Family Science**

(Perm req)

Credits: 1-3

Grading Method: Regular, Audit, Sat-Fail

Arranged group study on specific topic which may vary from term to term.

Must have written permission of faculty member and chairperson.

Contact department for information to register for this course.

FMSC699 **Independent Study**

(Perm req)

Credits: 1-6

Grading Method: Regular, Audit, Sat-Fail

Contact department for information to register for this course.

FMSC720 **Study Design in Maternal Child Health Epidemiology**

Credits: 3

Grading Method: Regular, Audit, Sat-Fail

Prerequisite: EPIB610. Credit only granted for: EPIB612 or FMSC720.

A detailed survey of key epidemiologic study designs provided through readings, lectures, and exercises. Lectures begin by considering the evolution of epidemiologic thought and parallel developments in design of epidemiologic studies. Topics covered include assessment of causality in observational studies, investigation of acute outbreaks, survey design, cohort and case-control study designs, clinical randomized trials, and discussion of issues pertaining to measurement error in the assessment of exposures and outcomes in epdemiologic studies.

0101	Edmond Shenassa	Seats (Total: 15)
	W 10:00am - 12:45pm	AJC 2121

FMSC780 **Qualitative Methods in Family and Health Research**

Credits: 3 Grading Method: Regular, Audit, Sat-Fail

Credit only granted for: FMSC780 or FMST780. Formerly: FMST780.

Theoretical perspectives and methodological tools to conduct research with individuals and families across the life span. Review of research designs, participant fieldwork, observation and interview projects, data collection, computer-assisted data analysis, and development of grounded theory.

0101	Kevin Roy	Seats (Total: 15)
	M 1:00pm - 3:54pm	Location: TBA

FMSC789 **Non-Thesis Research**

(Perm req)

Credits: 1-3 Grading Method: Regular, Audit, Sat-Fail

Non-thesis option research papers.

Contact department for information to register for this course.

FMSC799 **Master's Thesis Research**

(Perm req)

Credits: 1-6 Grading Method: Sat-Fail

Must have written permission of faculty member and chairperson.

Contact department for information to register for this course.

FMSC810 **Theory in Family Systems and Family Health**

(Perm req)

Credits: 3 Grading Method: Regular, Audit, Sat-Fail

Restriction: Permission of instructor. Credit only granted for: FMSC810, FMST698P, or FMST810. Formerly: FMST810.

Theory and research on family interaction and family coping with normative health and mental health transitions and non-normative crises across the family life cycle. Micro-analysis of family process in communication, decision-making, problem-solving, and compliance to health regimens. Examination of dysfunctional patterns and effective coping strategies.

0101	Kevin Roy	Seats (Total: 15)
	Tu 1:00pm - 3:45pm	Location: TBA

FMSC879 **Preparing Future Faculty and Professionals Seminar**

Credits: 1 Grading Method: Regular, Sat-Fail

Development of skills necessary to obtain and succeed in academic and non-academic positions in family science and public health. Topics include: career mapping, networking, teaching/teaching portfolios, independent research, publishing, grant writing, program and policy evaluation, consulting, job search, interviewing and negotiation, mentoring, diversity, work-family balance, and ethical issues in the workplace. Periodic visits to universities and government/nonprofit employers.

0101	Sandra Quinn	Seats (Total: 30)
	W 1:00pm - 1:50pm	Location: TBA

FMSC898 **Pre-Candidacy Research**

Credits: 1-8 Grading Method: Regular, Sat-Fail

Contact department for information to register for this course.

FMSC899 **Doctoral Dissertation Research**

(Perm req)

Credits: 6 Grading Method: Sat-Fail

Contact department for information to register for this course.

FREN French Spring 2020

FREN103 **Intensive Elementary French**

Credits: 4 Grading Method: Regular, Pass-Fail, Audit

Prerequisite: Must have appropriate Foreign Language Placement Test (FLPT) score. Restriction: Must not have completed FREN102; and must not be a native/fluent speaker of French. Credit only granted for: FREN102 or FREN103.

Covers speaking, reading, writing, listening, and culture of French-speaking world.

0101	Clara Bichon MWF 10:00am - 10:50am Class time/details on ELMs	Seats (Total: 25) JMZ 2122 ONLINE
0201	Madeline Muravchik MWF 11:00am - 11:50am Class time/details on ELMs	Seats (Total: 25) JMZ 0208 ONLINE
0301	Clara Bichon MWF 12:00pm - 12:50pm Class time/details on ELMs	Seats (Total: 25) JMZ 1122 ONLINE

FREN203 **Intensive Intermediate French**

Credits: 4 | Grading Method: Regular, Pass-Fail, Audit | CORE: HO

Prerequisite: FREN103; or must have appropriate Foreign Language Placement Test (FLPT) score. Restriction: Must not be a native/fluent speaker of French. Credit only granted for: FREN201 or FREN203.

Covers speaking, reading, writing, listening, and culture of French-speaking world.

0101	Guilhem Le Saux MWF 10:00am - 10:50am Class time/details on ELMs	Seats (Total: 25) JMZ 2123 ONLINE
0201	Guilhem Le Saux MWF 12:00pm - 12:50pm Class time/details on ELMs	Seats (Total: 25) JMZ 3120 ONLINE
0301	Mary Ellen Scullen MWF 1:00pm - 1:50pm Class time/details on ELMs	Seats (Total: 25) JMZ 2123 ONLINE
0401	Inaam Ngadi MWF 11:00am - 11:50am Class time/details on ELMs	Seats (Total: 25) JMZ 2120 ONLINE

FREN204 **French Grammar and Composition**

Credits: 3 | Grading Method: Regular, Pass-Fail, Audit | CORE: HO

Prerequisite: FREN201 or FREN203; or must have appropriate Foreign Language Placement Test (FLPT) score. Restriction: Not open to native/fluent speakers of French.

Intensive study of French grammar and composition.

0101	Leandra Cormier MWF 1:00pm - 1:50pm Class time/details on ELMs	Seats (Total: 25) JMZ 3205 ONLINE
0201	Elizabeth Robinson MWF 11:00am - 11:50am Class time/details on ELMs	Seats (Total: 25) JMZ 2207 ONLINE

FREN211 **French Reading and Conversation**

Credits: 3 | Grading Method: Regular, Pass-Fail, Audit | CORE: HO

Prerequisite: FREN201 or FREN203. Restriction: Must not be a native/fluent speaker of French.

Practice in spoken French at intermediate level based on readings in a variety of genres. Written homework and exams.

Contact department for information to register for this course.

FREN241 **Women Writers of French Expression in Translation**

Credits: 3 | Grading Method: Regular, Pass-Fail, Audit | CORE: HL, D | General Education: DSHU

Works and ideas of 20th century women writers of French in Canada, Africa, the Caribbean and France. Taught in English.

Contact department for information to register for this course.

FREN250 **Introduction to Cultural and Textual Analysis**

Credits: 3 | Grading Method: Regular, Pass-Fail, Audit | CORE: HL | General Education: DSHU

Prerequisite: FREN204; or students who have taken courses with comparable content may contact the department. Restriction: Must not be a native/fluent speaker of French. Credit only granted for: FREN250 or FREN250H.

Introduction to cultural and textual analysis of selected readings from various genres in French literature. Taught in French.

Cross-listed with FREN250H. Credit granted for FREN250 or FREN250H.

0101	Francesca Roth MWF 11:00am - 11:50am	Seats (Total: 25) JMZ 1122
0201	Charlee Bezilla MWF 1:00pm - 1:50pm	Seats (Total: 25) JMZ 2117

FREN250H **Introduction to Cultural and Textual Analysis**

Credits: 3 | Grading Method: Regular, Pass-Fail, Audit | CORE: HL | General Education: DSHU

Prerequisite: FREN204; or students who have taken courses with comparable content may contact the department. Restriction: Must not be a native/fluent speaker of French. Credit only granted for: FREN250 or FREN250H.

Introduction to cultural and textual analysis of selected readings from various genres in French literature. Taught in French.

For general honors students only. Cross-listed with FREN250. Credit granted for FREN250 or FREN250H.

0101	Francesca Roth MWF 11:00am - 11:50am	Seats (Total: 25) JMZ 1122
0201	Charlee Bezilla MWF 1:00pm - 1:50pm	Seats (Total: 25) JMZ 2117

FREN269C **Special Topics in Study Abroad II; La Chason Francaise: Then and Now**

Credits: 3 | Grading Method: Regular, Pass-Fail, Audit

Special topics course taken as part of an approved study abroad program.

Contact department for information to register for this course.

FREN269F **Special Topics in Study Abroad II; French Conversation I**

Credits: 1-3 | Grading Method: Regular, Pass-Fail, Audit

Special topics course taken as part of an approved study abroad program.

Contact department for information to register for this course.

FREN269G **Special Topics in Study Abroad II; French Conversation**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Special topics course taken as part of an approved study abroad program.

Contact department for information to register for this course.

FREN269L **Special Topics in Study Abroad II; LANGUAGE AND CINEMA**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Special topics course taken as part of an approved study abroad program.

Contact department for information to register for this course.

FREN269P **Special Topics in Study Abroad II; Perspectives on Contemporary France**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Special topics course taken as part of an approved study abroad program.

Contact department for information to register for this course.

FREN269Z **Special Topics in Study Abroad II; Third-Year French II**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Special topics course taken as part of an approved study abroad program.

Contact department for information to register for this course.

FREN301 **Composition and Style**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Prerequisite: FREN250; or students who have taken courses with comparable content may contact the department. Restriction: Must not be a native/fluent speaker of French.

Grammatical analysis, elements of style; range of written genres.

0101	Sarah Benharrech TuTh 11:00am - 12:15pm	Seats (Total: 20) JMZ 2117
0201	Morgan McMahon MW 3:30pm - 4:45pm	Seats (Total: 20) JMZ 1117

FREN302 **Translation: French to English**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Prerequisite: FREN301; or students who have taken courses with comparable content may contact the department.

Practicum in translation primarily from French to English; contrastive analysis.

0101	Erica Cefalo	Seats (Total: 20)
	MWF 11:00am - 11:50am	JMZ 0120

FREN306 **Commercial French I**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Prerequisite: FREN301; or students who have taken courses with comparable content may contact the department.

Introduction to commercial French including correspondence and business terminology. Emphasis on cross-cultural concepts needed for successful interaction within business settings. Taught in French.

Taught in French.

0101	Erica Cefalo	Seats (Total: 20)
	MWF 12:00pm - 12:50pm	JMZ 0122

FREN311 **Advanced Oral Expression**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Prerequisite: FREN250; or students who have taken courses with comparable content may contact the department. Restriction: Must not be a native/fluent speaker of French.

Linguistic and thematic analysis of written, audio, and visual texts. Focus on aural and oral skills. Some written assignments and evaluation.

Contact department for information to register for this course.

FREN312 **France Today**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Prerequisite: FREN301; or students who have taken courses with comparable content may contact the department. Restriction: Must not be a native/fluent speaker of French.

Analysis and discussion of current events and institutions using various French media resources.

Contact department for information to register for this course.

FREN351 **From Romanticism to the Age of Modernism and Beyond**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Prerequisite: FREN301; or students who have taken courses with comparable content may contact the department.

A survey of the chief authors and major movements of French literature from Pre-Romanticism to the present.

Contact department for information to register for this course.

FREN352 **From the Age of Epic and Romance to the Enlightenment**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Prerequisite: FREN301; or students who have taken courses with comparable content may contact the department.

A survey of the chief authors and major movements of French literature from the Middle Ages to the end of the 18th century.

Cross-listed with FREN352H. Credit granted for FREN352 or FREN352H.

0101	Andrea Frisch	Seats (Total: 25)
	TuTh 2:00pm - 3:15pm	JMZ 1215

FREN352H **From the Age of Epic and Romance to the Enlightenment**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Prerequisite: FREN301; or students who have taken courses with comparable content may contact the department.

A survey of the chief authors and major movements of French literature from the Middle Ages to the end of the 18th century.

Restricted to Honors students only. Cross-listed with FREN352. Credit granted for FREN352 or FREN352H.

0101	Andrea Frisch	Seats (Total: 25)
	TuTh 2:00pm - 3:15pm	JMZ 1215

FREN369F **Special Topics in Study Abroad III; Third-Year French I**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Special topics course taken as part of an approved study abroad program.

Contact department for information to register for this course.

FREN369G **Special Topics in Study Abroad III; Third-Year French II**

Credits: 1-6 Grading Method: Regular, Pass-Fail, Audit

Special topics course taken as part of an approved study abroad program.

Contact department for information to register for this course.

FREN369Y **Special Topics in Study Abroad III; Fourth-Year French I**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Special topics course taken as part of an approved study abroad program.

Contact department for information to register for this course.

FREN386 **Experiential Learning**

(Perm req)

Credits: 3-6 Grading Method: Regular, Pass-Fail

Prerequisite: Permission of ARHU-School of Languages, Literatures, and Cultures department. Restriction: Junior standing or higher.

Contact department for information to register for this course.

FREN387 **Critical Writing on France and the French-Speaking World**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Prerequisite: FREN301. Restriction: Not open to Native speakers.

Intensive writing course based on focused study of issues and concerns drawn from French and Francophone literatures, films, and cultures. Elements of style, review of grammar. Taught in French.

Theme: Le Quebec sous toutes ses coutures. Quebec from all angles.

0101	Mercedes Baillargeon	Seats (Total: 20)
	MW 3:30pm - 4:45pm	JMZ 1122

FREN399 **Directed Study in French**

(Perm req)

Credits: 1-3

Grading Method: Regular, Pass-Fail

Advanced undergraduates develop syllabus, reading list, and course requirements with interested faculty member. Designed for in-depth study of material not offered in regular courses or as expansion of course material. To be planned during semester preceding registration.

Supervised work under professor of student's choice with permission of instructor. Contact department for details.

Contact department for information to register for this course.

FREN399A **Directed Study in French**

Credits: 3

Grading Method: Regular, Pass-Fail

Advanced undergraduates develop syllabus, reading list, and course requirements with interested faculty member. Designed for in-depth study of material not offered in regular courses or as expansion of course material. To be planned during semester preceding registration.

Contact department for information to register for this course.

FREN399B **Directed Study in French; Directed Study in Nice II**

Credits: 1-3

Grading Method: Regular, Pass-Fail

Advanced undergraduates develop syllabus, reading list, and course requirements with interested faculty member. Designed for in-depth study of material not offered in regular courses or as expansion of course material. To be planned during semester preceding registration.

Contact department for information to register for this course.

FREN495H **Honors Thesis Research**

(Perm req)

Credits: 3

Grading Method: Regular, Pass-Fail, Audit

Restriction: Must be admitted to the departmental honors program.

The writing of a paper under the direction of a professor in this department and an oral examination. Required to fulfill the departmental honors requirement.

Contact department for information to register for this course.

FREN498M **Special Topics in French Literature; Gender and Sexuality in French and Francophone Literature and Culture**

Credits: 3

Grading Method: Regular, Pass-Fail, Audit

Selected topics in French literature.

Through theory, literature, and film we will be looking at the way gender and sexuality are constructed, subverted, and/or regulated within normative bounds that are socially constructed throughout time and culture. With a focus on French and Francophone literature and film of the 20th and 21st centuries. Taught in French

0101	Mercedes Baillargeon MW 2:00pm - 3:15pm	Seats (Total: 25) JMZ 2122

FREN498V **Special Topics in French Literature; The Imaginary Herbiary: Vegetal Images in French Literature**

Credits: 3

Grading Method: Regular, Pass-Fail, Audit

Selected topics in French literature.

The course presents a survey of plants as models, agents, and metaphors in French and francophone literatures and cultures from the Middle Age to the Information Age. Taught in French.

0101	Sarah Benharrech TuTh 2:00pm - 3:15pm	Seats (Total: 25) JMZ 0122

FREN499X **Special Topics in French Studies; Directed Study in French**

Credits: 3

Grading Method: Regular, Pass-Fail, Audit

An aspect of French studies, the specific topic to be announced each time the course is offered.

Contact department for information to register for this course.

FREN699B **Seminar; Deterritorialized Literature, 16th-17th Century**

Credits: 3

Grading Method: Regular, Audit, Sat-Fail

Topic to be determined each semester.

This course focuses on the different forms of 16th-17th deterritorialization texts and their authors embody: poetic exile; translation; spiritual alienation; philosophical solitude. Taught in French.

0101	Andrea Frisch Tu 4:30pm - 7:15pm	Seats (Total: 10) JMZ 3106A

FREN699J **Seminar; French Popular Culture: Colonial and Postcolonial Texts, Films, and Images**

Credits: 3 Grading Method: Regular, Audit, Sat-Fail

Topic to be determined each semester.

This seminar will examine the presence and evolution of colonial and post-colonial discourses in various "texts" or representations pertaining to French popular culture (literatures, press illustrations, comic books, photographs, films) before and after 1962 with a particularattention to issues of class, gender, race, memory and identity. Taught in French

0101	Caroline Eades	Seats (Total: 10)
	M 4:30pm - 7:15pm	JMZ 3205

FREN798 **Master's Independent Study**

(Perm req)

Credits: 1-3 Grading Method: Regular, Audit, Sat-Fail

Contact department for information to register for this course.

FREN799 **Master's Thesis Research**

Credits: 1-6 Grading Method: Sat-Fail

Contact department for information to register for this course.

FREN889 **Doctoral Independent Study**

(Perm req)

Credits: 3 Grading Method: Regular, Audit, Sat-Fail

Contact department for information to register for this course.

FREN898 **Pre-Candidacy Research**

Credits: 1-8 Grading Method: Regular, Sat-Fail

Contact department for information to register for this course.

FREN899 **Doctoral Dissertation Research**

(Perm req)

Credits: 6 Grading Method: Sat-Fail

Contact department for information to register for this course.

GEMS102 **Research Topic Exploration and Team Formation**

Credits: 1 | Grading Method: Regular, Pass-Fail

Restriction: Must be in the Gemstone program.

Under the guidance of staff and visiting speakers, students will develop research topics that they will pursue for the remainder of their participation in the Gemstone program, and form into interdisciplinary teams around these topics.

0101	Jessica Lee, Leah Kreimer Tobin **Meets January 27, 2020 - March 27, 2020** Th 5:00pm - 7:00pm	Seats (Total: 180) EGR 1202	

GEMS104 **Topics in Science, Technology and Society (STS)**

Credits: 3 | Grading Method: Regular, Pass-Fail, Audit | CORE: IE | General Education: DSHS, DSHU, DSSP, SCIS

Prerequisite: GEMS100. Restriction: Must be in the Gemstone program.

An examination of how cultural, economic, political and social forces shape scientific and technological systems and, conversely, how scientific and technological systems have affected the culture, economies, organization and politics of societies. Students in the course will form small teams to carry out semester-long research on socio/technical topics related to the course theme chosen for that specific semester.

Discussions will meet at various times during weeks 1-8 (1/27-3/27) and after team formation (3/28) starting week 9, on Thursdays from 5-6:15pm.

0101	Kristan Skendall Tu 5:00pm - 6:15pm W 12:00pm - 1:15pm	Seats (Total: 9) ESJ 0224 ELL 0100A	Discussion
0102	Kristan Skendall Tu 5:00pm - 6:15pm W 3:00pm - 4:15pm	Seats (Total: 9) ESJ 0224 ELL 0100A	Discussion
0103	Kristan Skendall Tu 5:00pm - 6:15pm Th 11:00am - 12:15pm	Seats (Total: 9) ESJ 0224 ELL 0100A	Discussion
0104	Kristan Skendall Tu 5:00pm - 6:15pm Th 9:30am - 10:45am	Seats (Total: 9) ESJ 0224 ELL 0100B	Discussion

0105	Kristan Skendall Tu 5:00pm - 6:15pm Th 2:00pm - 3:15pm	Seats (Total: 10) ESJ 0224 ELL 0100B	Discussion
0106	Kristan Skendall Tu 5:00pm - 6:15pm F 10:00am - 11:15am	Seats (Total: 10) ESJ 0224 ELL 0100B	Discussion
0107	Kristan Skendall Tu 5:00pm - 6:15pm F 12:00pm - 1:15pm	Seats (Total: 9) ESJ 0224 ELL 0100B	Discussion
0108	Kristan Skendall Tu 5:00pm - 6:15pm Th 9:00am - 10:15am	Seats (Total: 9) ESJ 0224 ELL 0100A	Discussion
0109	Kristan Skendall Tu 5:00pm - 6:15pm Th 11:00am - 12:15pm	Seats (Total: 9) ESJ 0224 ELL 0102	Discussion
0110	Kristan Skendall Tu 5:00pm - 6:15pm W 2:00pm - 3:15pm	Seats (Total: 9) ESJ 0224 ELL 0100B	Discussion
0111	Kristan Skendall Tu 5:00pm - 6:15pm Th 2:30pm - 3:45pm	Seats (Total: 10) ESJ 0224 ELL 0100A	Discussion
0112	Kristan Skendall Tu 5:00pm - 6:15pm F 11:00am - 12:15pm	Seats (Total: 9) ESJ 0224 ELL 0100A	Discussion

GEMS208E **Special Topics in Leadership and Team Development; Research Topic Exploration Teaching Freshmen First Time Section Leader**

Credits: 1-3 Grading Method: Regular, Pass-Fail, Audit

Principles, methods and types of leadership and team development with an emphasis on group discussion and decision making. Reading, discussion and exploration of the basic team concept, communications for winning scenarios, goal setting, problem solving, conflict resolution and research methods.

0101	Kristan Skendall, Jessica Lee, Leah Kreimer Tobin Contact instructor or department for details.	Seats (Total: 18)

GEMS208F **Special Topics in Leadership and Team Development; Research Topic Exploration Teaching Freshmen: Returner Section Leader**

Credits: 1-3 Grading Method: Regular, Pass-Fail, Audit

Principles, methods and types of leadership and team development with an emphasis on group discussion and decision making. Reading, discussion and exploration of the basic team concept, communications for winning scenarios, goal setting, problem solving, conflict resolution and research methods.

Restricted to Gemstone Students.

0201	Jessica Lee, Leah Kreimer Tobin, Kristan Skendall Contact instructor or department for details.	Seats (Total: 12)

GEMS208J **Special Topics in Leadership and Team Development; Gems Camp**

Credits: 1-3 Grading Method: Regular, Pass-Fail, Audit

Principles, methods and types of leadership and team development with an emphasis on group discussion and decision making. Reading, discussion and exploration of the basic team concept, communications for winning scenarios, goal setting, problem solving, conflict resolution and research methods.

0101	Jessica Lee Contact instructor or department for details.	Seats (Total: 24)

GEMS208K **Special Topics in Leadership and Team Development; GEMS Connect**

Credits: 1-3 Grading Method: Regular, Pass-Fail, Audit

Principles, methods and types of leadership and team development with an emphasis on group discussion and decision making. Reading, discussion and exploration of the basic team concept, communications for winning scenarios, goal setting, problem solving, conflict resolution and research methods.

0101	Jessica Lee Contact instructor or department for details.	Seats (Total: 30)

GEMS208M **Special Topics in Leadership and Team Development; AMPP: The Gemstone Alumni Mentor & Partner Program**

Credits: 1-3

Grading Method: Regular, Pass-Fail, Audit

Principles, methods and types of leadership and team development with an emphasis on group discussion and decision making. Reading, discussion and exploration of the basic team concept, communications for winning scenarios, goal setting, problem solving, conflict resolution and research methods.

0101	Leah Kreimer Tobin	Seats (Total: 100)
	Contact instructor or department for details.	

GEMS208P **Special Topics in Leadership and Team Development; Gemstone Leadership Council**

Credits: 1-3

Grading Method: Regular, Pass-Fail, Audit

Principles, methods and types of leadership and team development with an emphasis on group discussion and decision making. Reading, discussion and exploration of the basic team concept, communications for winning scenarios, goal setting, problem solving, conflict resolution and research methods.

0101	Jessica Lee	Seats (Total: 15)
	Contact instructor or department for details.	

GEMS208T **Special Topics in Leadership and Team Development; Thesis Conference Planning Team**

Credits: 1

Grading Method: Regular, Pass-Fail, Audit

Principles, methods and types of leadership and team development with an emphasis on group discussion and decision making. Reading, discussion and exploration of the basic team concept, communications for winning scenarios, goal setting, problem solving, conflict resolution and research methods.

0101	Leah Kreimer Tobin, Kristan Skendall	Seats (Total: 7)
	Contact instructor or department for details.	

GEMS296 **Team Project Seminar I**

Credits: 1

Grading Method: Regular, Pass-Fail

Prerequisite: GEMS100, GEMS102, and GEMS104. Corequisite: GEMS202. Restriction: Must be in the Gemstone program with sophomore standing in a research team.

This is the first of six seminars during which Gemstone students carry out multidisciplinary research with the guidance of a faculty mentor. The teams develop their working relationship, start their literature search, define their research question, and set short & long term goals.

0113	Kristan Skendall Contact instructor or department for details.	Seats (Total: 5)

GEMS297 **Team Project Seminar II**

Credits: 2 Grading Method: Regular, Pass-Fail

Restriction: Must be in the Gemstone program with sophomore standing in a research team.

This is the second of six seminars during which Gemstone students carry out interdisciplinary research with the guidance of a faculty mentor. The team develops its website, prepares and presents its research proposal and begins its research project.

Restricted to Gemstone Students.

0101	J Carson Smith Su 9:00pm - 9:50pm M 9:00pm - 9:50pm	Seats (Total: 14) CHE 2145 Location: TBA
0102	Steven Mitchell Tu 3:30pm - 4:30pm Tu 8:30am - 9:20am	Seats (Total: 14) EGR 2162 IRB 1207
0103	Kan Cao Tu 4:00pm - 4:50pm Tu 5:00pm - 5:50pm	Seats (Total: 14) ESJ B0320 ESJ B0320
0104	Mona Mittal W 4:30pm - 5:20pm Tu 8:00am - 8:50am	Seats (Total: 14) Location: TBA Location: TBA
0105	Stephanie Yarwood Tu 2:00pm - 3:40pm	Seats (Total: 14) ANS 1422
0106	Siddhartha Das Tu 5:00pm - 5:50pm M 5:00pm - 5:50pm	Seats (Total: 14) EGR 0159 ESJ B0322

0107	Pierre-Emmanuel Jabin F 3:00pm - 3:50pm M 8:00am - 8:50am	Seats (Total: 14) Location: TBA Location: TBA
0108	John Baras Tu 5:00pm - 5:50pm F 5:00pm - 5:50pm	Seats (Total: 14) AVW 2250 AVW 2250
0109	Mohamad Al-Sheikhly Th 8:00am - 8:50am Tu 7:00pm - 7:50pm	Seats (Total: 14) CHE 2145 ESJ B0322
0110	Romel Gomez Tu 5:00pm - 7:00pm	Seats (Total: 14) Location: TBA
0111	Anil Deane Th 5:30pm - 6:30pm W 7:00pm - 7:50pm	Seats (Total: 14) ATL 4301 Location: TBA
0112	Rodolphe Gentili Th 8:00am - 8:50am Tu 8:00pm - 8:50pm	Seats (Total: 14) SPH 0301 JMZ 1124
0113	Kristan Skendall Contact instructor or department for details.	Seats (Total: 5)

GEMS396 **Team Project Seminar III**

Credits: 2 Grading Method: Regular, Pass-Fail

Prerequisite: GEMS297. Restriction: Must be in the Gemstone program with junior standing in a research team.

This is the third of six seminars during which Gemstone students carry out interdisciplinary research with the guidance of a faculty mentor. The team presents its progress at the Gemstone Colloquia.

0113	Kristan Skendall Contact instructor or department for details.	Seats (Total: 5)

GEMS397 **Team Project Seminar IV**

Credits: 2 Grading Method: Regular, Pass-Fail

Prerequisite: GEMS396. Restriction: Must be in the Gemstone program with junior standing in a research team.

This is the fourth of six seminars during which Gemstone students carry out interdisciplinary research with the guidance of a faculty mentor. The team further develops its website. Also they will prepare and present the team project in the poster session of Undergraduate Research Day.

Restricted to Gemstone Students.

0101	Nishanth Sunny M 9:00am - 9:50am F 7:00pm - 7:50pm	Seats (Total: 14) ANS 0467 HBK 0108
0102	Anil Deane Contact instructor or department for details.	Seats (Total: 14)
0103	Natasha Almeida e Andrade W 8:00am - 8:50am Th 6:00pm - 6:50pm	Seats (Total: 14) EGR 1179 MTH 0302
0104	Giuliano Scarcelli F 3:00pm - 5:00pm	Seats (Total: 14) AJC 4104
0105	Kenneth Frauwirth M 2:30pm - 3:30pm Th 10:00am - 10:50am M 5:00pm - 5:50pm	Seats (Total: 14) Location: TBA Location: TBA AJC 2119
0106	Bryan Quinn M 6:00pm - 6:50pm F 10:00am - 10:50am	Seats (Total: 14) AVW 1318 AVW 1318
0107	David Akin, Mary Bowden F 1:00pm - 1:50pm Th 6:15pm - 7:15pm	Seats (Total: 14) Location: TBA JMZ 1224
0108	Doug Lombardi W 12:00pm - 12:50pm Th 3:30pm - 4:20pm	Seats (Total: 14) ESJ B0320 PLS 1176
0109	Jae Kun Shim W 3:00pm - 3:50pm M 6:00pm - 6:50pm	Seats (Total: 14) SPH 0110F SPH 0110F

0110	Birthe Kjellerup Tu 8:30am - 9:30am W 8:30pm - 9:30pm	Seats (Total: 14) ESJ B0320 ESJ B0320
0111	Soheil Feizi F 12:00pm - 12:50pm Tu 6:45pm - 8:15pm	Seats (Total: 14) Location: TBA AJC 2119
0112	Peter Kofinas, Omar Ayyub Tu 5:00pm - 5:50pm Th 8:00am - 8:50am	Seats (Total: 14) CHE 2116 Location: TBA
0113	Kristan Skendall Contact instructor or department for details.	Seats (Total: 5)

GEMS496 **Project Writing Seminar**

(Perm req)

Credits: 2 Grading Method: Regular, Pass-Fail

Prerequisite: GEMS397. Restriction: Must be in the Gemstone program.

This is the fifth of six seminars during which Gemstone students carry out research with the guidance of a faculty mentor. The team finishes the analysis of their data and writes and edits its team thesis.

0113	Kristan Skendall Contact instructor or department for details.	Seats (Total: 5)

GEMS497 **Team Thesis Defense**

Credits: 2 Grading Method: Regular, Pass-Fail General Education: DSSP

Prerequisite: GEMS396. Restriction: Must be in the Gemstone program.

Gemstone teams will complete the team research project and thesis. The team will formally present the thesis to experts in the area of interest at a Team Thesis Conference before final submission.

Restricted to Gemstone Students.

0101	Matthias Zwicker M 9:00am - 9:50am F 8:00am - 8:50am	Seats (Total: 14) Location: TBA Location: TBA

0102	Kevin Knapstein W 4:00pm - 6:00pm	Seats (Total: 14) Location: TBA
0103	Mohamad Al-Sheikhly TuTh 11:00am - 11:50am	Seats (Total: 14) Location: TBA
0104	Jose Aranda-Espinoza M 8:00am - 8:50am W 6:30pm - 8:20pm	Seats (Total: 14) AJC 3104 JMZ 1117
0105	Joanna Goger M 2:00pm - 2:50pm Th 8:15am - 9:05am	Seats (Total: 14) PLS 1162 SYM 0215
0106	Bao Yang Tu 5:00pm - 5:50pm F 9:00am - 9:50am	Seats (Total: 14) EGR 0159 EGR 0159
0107	Ashok Agrawala W 8:00am - 10:00am	Seats (Total: 14) Location: TBA
0108	Margret Bjarnadottir Th 10:00am - 10:50am Th 5:00pm - 5:50pm	Seats (Total: 14) Location: TBA PHY 4222
0109	Anil Deane Th 6:30pm - 7:30pm W 2:30pm - 3:30pm	Seats (Total: 14) ATL 4301 ATL 4364
0110	Lester Schultheis W 8:00am - 8:50am M 8:00am - 8:50am	Seats (Total: 14) JMZ 0120 JMZ 0120
0111	David Akin Th 6:00pm - 6:50pm W 5:00pm - 5:50pm	Seats (Total: 14) Location: TBA Location: TBA
0113	Kristan Skendall Contact instructor or department for details.	Seats (Total: 5)

GEOG100 **Introduction to Geography**

Credits: 3 | Grading Method: Regular, Pass-Fail, Audit | CORE: SB | General Education: DSHS

An introduction to the broad field of geography as it is applicable to the general education student. The course presents the basic rationale of variations in human occupancy of the earth and stresses geographic concepts relevant to understanding world, regional and local issues.

0101	Keith Yearwood MW 12:00pm - 12:50pm Th 11:00am - 11:50am	Seats (Total: 25) SHM 2102 TYD 0111	Discussion
0102	Keith Yearwood MW 12:00pm - 12:50pm Th 12:30pm - 1:20pm	Seats (Total: 25) SHM 2102 LEF 1220	Discussion
0103	Keith Yearwood MW 12:00pm - 12:50pm Th 9:30am - 10:20am	Seats (Total: 25) SHM 2102 SQH 1123	Discussion
0104	Keith Yearwood MW 12:00pm - 12:50pm Th 2:00pm - 2:50pm	Seats (Total: 25) SHM 2102 SQH 1121	Discussion

GEOG140 **Natural Disasters: Earthquakes, Floods, and Fires**

Credits: 3 | Grading Method: Regular, Pass-Fail, Audit | CORE: PS | General Education: DSNS, SCIS

Catastrophic Environmental Events (CCE) that are becoming more common in this time of global environmental change and it is essential that today's students be equipped with the knowledge and skills to be leaders as we, as a society, understand the upheaval that these CCEs are causing. Students will examine how CEEs shape human society and ecosystem from the interdisciplinary perspective afforded by the field of Geography. Students will use the latest geographic science concepts and techniques in exploring these events. Using satellite imagery they will gain a multi-scale perspective of the ecological and societal aspects of the events.

0101	Keith Yearwood MW 10:00am - 10:50am Th 11:00am - 11:50am	Seats (Total: 25) SPH 1312 JMZ 0120	Discussion
0102	Keith Yearwood MW 10:00am - 10:50am Th 9:30am - 10:20am	Seats (Total: 25) SPH 1312 JMZ 1120	Discussion

0103	Keith Yearwood MW 10:00am - 10:50am F 9:00am - 9:50am	Seats (Total: 25) SPH 1312 LEF 0135	Discussion
0104	Keith Yearwood MW 10:00am - 10:50am F 12:00pm - 12:50pm	Seats (Total: 25) SPH 1312 JMZ 3203	Discussion
0105	Keith Yearwood MW 10:00am - 10:50am F 10:00am - 10:50am	Seats (Total: 25) SPH 1312 LEF 1201	Discussion
0106	Keith Yearwood MW 10:00am - 10:50am Th 9:30am - 10:20am	Seats (Total: 25) SPH 1312 LEF 1201	Discussion
0201	Keith Yearwood MW 11:00am - 11:50am Th 9:30am - 10:20am	Seats (Total: 25) ESJ 2208 LEF 1220	Discussion
0202	Keith Yearwood MW 11:00am - 11:50am Th 11:00am - 11:50am	Seats (Total: 25) ESJ 2208 LEF 1220	Discussion
0203	Keith Yearwood MW 11:00am - 11:50am F 10:00am - 10:50am	Seats (Total: 25) ESJ 2208 TYD 2110	Discussion
0204	Keith Yearwood MW 11:00am - 11:50am F 1:00pm - 1:50pm	Seats (Total: 25) ESJ 2208 TYD 2110	Discussion

GEOG201 **Geography of Environmental Systems**

Credits: 3 | Grading Method: Regular, Pass-Fail, Audit | General Education: DSNL (if taken with GEOG211)

A systematic introduction to the processes and associated forms of the atmosphere and earth's surfaces emphasizing the interaction between climatology, hydrology and geomorphology.

0101	Laura Duncanson TuTh 9:30am - 10:45am	Seats (Total: 240) ESJ 0202

GEOG202 **Introduction to Human Geography**

Credits: 3	Grading Method: Regular, Pass-Fail, Audit	CORE: SB	General Education: DSHS, DVCC

Introduction to what geographers do and how they do it. Systematic study of issues regarding social and cultural systems from a global to a local scale. Looks at the distribution of these variables and answers the question "Why here, and not there"?

0101	Julie Silva MW 11:00am - 11:50am F 1:00pm - 1:50pm	Seats (Total: 25) LEF 2205 TYD 0111	Discussion
0102	Julie Silva MW 11:00am - 11:50am Th 11:00am - 11:50am	Seats (Total: 25) LEF 2205 JMZ 0103	Discussion
0103	Julie Silva MW 11:00am - 11:50am F 12:00pm - 12:50pm	Seats (Total: 25) LEF 2205 LEF 1201	Discussion
0104	Julie Silva MW 11:00am - 11:50am F 12:00pm - 12:50pm	Seats (Total: 25) LEF 2205 LEF 1220	Discussion
0105	Julie Silva MW 11:00am - 11:50am F 10:00am - 10:50am	Seats (Total: 25) LEF 2205 LEF 0135	Discussion
0106	Julie Silva MW 11:00am - 11:50am F 10:00am - 10:50am	Seats (Total: 25) LEF 2205 WDS 0104	Discussion
0107	Julie Silva MW 11:00am - 11:50am F 11:00am - 11:50am	Seats (Total: 25) LEF 2205 TYD 2110	Discussion
0108	Julie Silva MW 11:00am - 11:50am F 1:00pm - 1:50pm	Seats (Total: 25) LEF 2205 KEY 0121	Discussion

GEOG211 **Geography of Environmental Systems Laboratory**

Credits: 1

Grading Method: Regular, Pass-Fail, Audit

Prerequisite: Must have completed or be concurrently enrolled in GEOL120, GEOL100, or GEOG201.

A laboratory course to accompany GEOG 201. Analysis of the components of the earth's energy balance using basic instrumentation; weather map interpretation; soil analysis; the application of map and air photo interpretation techniques to landform analysis.

0101	Carrie Lewey, Laura Duncanson Class time/details on ELMs	Seats (Total: 24) ONLINE	Lab
0201	Carrie Lewey, Laura Duncanson Class time/details on ELMs	Seats (Total: 24) ONLINE	Lab
0301	Laura Duncanson, Carrie Lewey Class time/details on ELMs	Seats (Total: 24) ONLINE	Lab
0401	Laura Duncanson, Carrie Lewey Class time/details on ELMs	Seats (Total: 24) ONLINE	Lab
0501	Carrie Lewey, Laura Duncanson Class time/details on ELMs	Seats (Total: 24) ONLINE	Lab
0601	Laura Duncanson, Carrie Lewey Class time/details on ELMs	Seats (Total: 24) ONLINE	Lab
0701	Carrie Lewey, Laura Duncanson Class time/details on ELMs	Seats (Total: 24) ONLINE	Lab
0801	Laura Duncanson, Carrie Lewey Class time/details on ELMs	Seats (Total: 24) ONLINE	Lab
0901	Carrie Lewey, Laura Duncanson Class time/details on ELMs	Seats (Total: 24) ONLINE	Lab
1001	Laura Duncanson, Carrie Lewey Class time/details on ELMs	Seats (Total: 24) ONLINE	Lab

GEOG212 **Career Planning for Geographical Sciences, GIS, and ENSP Majors**

(Perm req)

Credits: 1

Grading Method: Regular, Pass-Fail, Audit

Restriction: Must be in one of the following programs (Geography; GEOG-GIS & Computer Cartography).

Increase student knowledge of professional development opportunities in Geographical Sciences through classroom activities and invited speakers, and to build awareness of career development tools and strategies.

0101	Amanda Hall	Seats (Total: 48)	
	W 3:00pm - 5:00pm	LEF 1158	Lab

GEOG301 **Advanced Geographical Environmental Systems**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Prerequisite: GEOG201 and GEOG211. Credit only granted for: GEOG398B or GEOG301. Formerly: GEOG398B.

This course will provide the students with an overview of the key elements of physical geography, including biogeography (factors and processes that control the geographical distributions of plants and animals, climatology (processes associated with controlling variations in weather and climate), and geomorphology (factors and processes that control changes to the physical structure of the earth surface in relation to geological structures).

0101	Sinead Farrell	Seats (Total: 40)	
	TuTh 12:30pm - 1:45pm	BPS 1238	

GEOG306 **Introduction to Quantitative Methods for the Geographic Environmental Sciences**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit General Education: FSAR

Credit only granted for: BIOM301, BMGT230, CCJS200, ECON230, ECON321, EDMS451, GEOG306, GEOL351, GVPT422, JOUR405, PSYC200 or SOCY201.

Essentials in the quantitative analysis of spatial and other data, with a particular emphasis on statistics and programming. Topics include data display, data description and summary, statistical inference and significance tests, analysis of variance, correlation, regression, and some advanced concepts, such as matrix methods, principal component analysis, and spatial statistics. Students will develop expertise in data analysis using advanced statistical software.

Students must pay a $40.00 lab materials fee.

0101	Naijun Zhou	Seats (Total: 25)	
	MW 9:00am - 9:50am	TYD 1118	
	W 12:00pm - 2:00pm	LEF 1136	Lab

0102	Naijun Zhou	Seats (Total: 25)	
	MW 9:00am - 9:50am W 2:00pm - 4:00pm	TYD 1118 LEF 1136	Lab
	Restriction: Open to GEOG, GIS, & ENSP-Coastal, Land Use, Global majors only.		

GEOG333 **The Social Geography of Metropolitan Areas in Global Perspective**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Prerequisite: GEOG201 and GEOG202; or permission of BSOS-Geography department. Credit only granted for: GEOG456 or GEOG333. Formerly: GEOG456.

A socio-spatial approach to human interaction within the urban environments: ways people perceive, define, behave in, and structure world cities and metropolitan areas. Cultural and social differences define spatial patterns of social activities which further define distinctions in distribution and interaction of people and their social institutions.

0101	Laixiang Sun	Seats (Total: 50)	
	TuTh 2:00pm - 3:15pm	SQH 1120	

GEOG373 **Geographic Information Systems**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Characteristics and organization of geographic data; creation and use of digital geospatial databases; metadata; spatial data models for thematic mapping and map analysis; use of geographic information system in society, government, and business. Practical training with use of advanced software and geographic databases.

Students must pay a $40.00 lab materials fee.

0101	Naijun Zhou	Seats (Total: 25)	
	MW 12:00pm - 12:50pm F 9:00am - 11:00am	TYD 0117 LEF 1136	Lab
0102	Naijun Zhou	Seats (Total: 25)	
	MW 12:00pm - 12:50pm F 1:00pm - 3:00pm	TYD 0117 LEF 1136	Lab
	Restriction: Open to GEOG, GIS, & ENSP-Coastal, Land Use, Global majors only.		

0103	Naijun Zhou MW 12:00pm - 12:50pm F 3:00pm - 5:00pm	Seats (Total: 25) TYD 0117 LEF 1136	 Lab

GEOG376 **Introduction to Computer Programming for GIS**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Prerequisite: Must have completed or be concurrently enrolled in MATH120, MATH130, or MATH140; or must have completed MATH220. And GEOG373; or permission of BSOS-Geography department.

Introduces conceptual and practical aspects of programming for geographic applications. The main focus is on developing a solid understanding of basic programming techniques irrespective of the specific programming language including variables, looping, conditional statements, nesting, math, strings, and other concepts. In addition, students will develop a proficiency in applying these basic programming principles to manipulating spatial data sources within the Geographic Information Systems (GIS).

Students must pay a $40.00 lab materials fee. Restriction: Open to GEOG, GIS, and ENSP-Coastal, Land Use, Global majors only.

0101	Taylor Oshan MW 12:00pm - 12:50pm F 9:00am - 11:00am	Seats (Total: 25) ONLINE LEF 1138	 Lab
0102	Taylor Oshan MW 12:00pm - 12:50pm F 3:00pm - 5:00pm	Seats (Total: 25) ONLINE LEF 1138	 Lab

GEOG384 **Internship in Geography I**

(Perm req)

Credits: 3 Grading Method: Regular, Pass-Fail

Prerequisite: GEOG211, GEOG306, GEOG212, and GEOG201; and (ENGL393 or ENGL390). Restriction: Must be in Geography program.

Supervised field training to provide career experience. Introduction to professional level activities, demands, opportunities. Placement at a public agency, non-profit organization, or private firm. Participation requires application to the internship advisor in preceding semester.

0101	Keith Yearwood Contact instructor or department for details.	Seats (Total: 25)

GEOG384H **Internship in Geography I**

Credits: 3 Grading Method: Regular, Pass-Fail

Prerequisite: GEOG211, GEOG306, GEOG212, and GEOG201; and (ENGL393 or ENGL390). Restriction: Must be in Geography program.

Supervised field training to provide career experience. Introduction to professional level activities, demands, opportunities. Placement at a public agency, non-profit organization, or private firm. Participation requires application to the internship advisor in preceding semester.

0101	Keith Yearwood	Seats (Total: 5)
	Contact instructor or department for details.	

GEOG385 **Internship in Geography II**

(Perm req)

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Prerequisite: GEOG211, GEOG306, GEOG212, and GEOG201; and must have completed a Junior (Professional) English course. Restriction: Must be in Geography program.

Supervised field training to provide career experience. Introduction to professional-level activities, demands, opportunities. Placement at a public agency, nonprofit organization, or private firm. Participation requires application to the internship advisor in preceding semester.

0101	Keith Yearwood	Seats (Total: 25)
	Contact instructor or department for details.	

GEOG385H **Internship in Geography II**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Prerequisite: GEOG211, GEOG306, GEOG212, and GEOG201; and must have completed a Junior (Professional) English course. Restriction: Must be in Geography program.

Supervised field training to provide career experience. Introduction to professional-level activities, demands, opportunities. Placement at a public agency, nonprofit organization, or private firm. Participation requires application to the internship advisor in preceding semester.

0101	Keith Yearwood	Seats (Total: 5)
	Contact instructor or department for details.	

GEOG396 **Honors Research**

(Perm req)

Credits: 3

Grading Method: Regular, Pass-Fail, Audit

Restriction: Permission of BSOS-Geography department; and senior standing or higher; and must be in Geography program. Formerly: GEOG397.

First course in the departmental honors sequence. Student development of a potential research topic under the guidance of a faculty advisor, culminating in a written and oral presentation of a research proposal.

0101	Instructor: TBA	Seats (Total: 5)
	Contact instructor or department for details.	

GEOG397 **Honors Thesis**

Credits: 3

Grading Method: Regular, Pass-Fail, Audit

Prerequisite: GEOG396. Restriction: Must be in Geography program; and senior standing or higher. Formerly: GEOG399.

Second course in the departmental honors sequence. Student research under the auspices of a faculty advisor, culminating in a research paper to be defended orally before the geography honors committee.

0101	Instructor: TBA	Seats (Total: 5)
	Contact instructor or department for details.	

GEOG398 **Special Topics in Geography**

(Perm req)

Credits: 3

Grading Method: Regular, Pass-Fail, Audit

An introductory course dealing with special topics in geography.

Contact department for information to register for this course.

GEOG398A **Special Topics in Geography; Issues in African Development**

Credits: 1-3

Grading Method: Regular, Pass-Fail, Audit

An introductory course dealing with special topics in geography.

Cross-listed with AASP398D, GVPT359F, and SOCY398Y. Credit only granted for AASP398D, GEOG398A, GVPT359F, or SOCY398Y.

0101	Sangeetha Madhavan	Seats (Total: 20)
	W 2:00pm - 4:30pm	KEY 0124

GEOG398H **Special Topics in Geography**

Credits: 1-3

Grading Method: Regular, Pass-Fail, Audit

An introductory course dealing with special topics in geography.

0101	Instructor: TBA Contact instructor or department for details. *Contact department or instructor for details.*	Seats (Total: 5)
0102	George Hurtt Contact instructor or department for details.	Seats (Total: 5)

GEOG415 **Land Use, Climate Change, and Sustainability**

Credits: 3

Grading Method: Regular, Pass-Fail, Audit

Prerequisite: GEOG123 or GEOG306; or permission of BSOS-Geography department. Recommended: GEOG340; or GEOG342; or GEOG331. Or GEOG201; and GEOG211. Credit only granted for: GEOG415 or GEOG498D. Formerly: GEOG498D.

The issues of climate change and land use change as two interlinked global and regional environmental issues and their implications for society and resource use are explored.

0101	George Hurtt TuTh 2:00pm - 3:15pm	Seats (Total: 30) LEF 1158

GEOG416 **Conceptualizing and Modeling Human-Environmental Interactions**

Credits: 3

Grading Method: Regular, Pass-Fail, Audit

Prerequisite: Permission of BSOS-Geography department. Or GEOG306, STAT100, MATH107, or MATH111; and (GEOG201 and GEOG202); and (GEOG331 or GEOG330). Corequisite: MATH130, MATH140, or MATH120; or MATH220. Credit only granted for: GEOG416 or GEOG498N. Formerly: GEOG498N.

Develops skills to carry out research that integrates environmental and economic aspects of sustainability by introducing extensively used quantitative tools for analyzing human-environmental interactions in the field of ecological economics. These include, e.g., index number calculations and decomposition analysis, Environmental Kuznets Curve (EKC), environmental input-output analysis and life-cycle analysis, and multi-criteria decisions aid (MCDA). Students will need laptops to run models during class.

Restriction: Open to GOEG, GIS, & ENSP-Coastal, Land Use, Global majors only.

0101	Honglin Zhong TuTh 11:00am - 12:15pm	Seats (Total: 25) LEF 2166

GEOG421 **Changing Geographies of China**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Prerequisite: Permission of BSOS-Geography department. Or GEOG202; and GEOG201; and (GEOG435, GEOG333, or GEOG332). Recommended: GEOG130; or GEOG140. Credit only granted for: GEOG328B or GEOG421. Formerly: GEOG328B.

Covers physical geography, history, and economic and political systems of the world's most populous country. The major focus will be on geographical issues in China's contemporary development: agriculture, population, urbanization, resource and energy, and environment.

0101	Shunlin Liang TuTh 2:00pm - 3:15pm	Seats (Total: 24) LEF 1171

GEOG441 **The Coastal Ocean**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Prerequisite: GEOG140; or students who have taken courses with comparable content may contact the department; or permission of BSOS-Geography department. Credit only granted for: GEOG441 or GEOG498C. Formerly: GEOG498C.

Introduction to coastal oceanography, focusing on the physical, biological, and geological aspects of ocean areqs on the inner continental shelves. Wave, currents, and tidal dynamics of bays, open coast, estuaries, and deltas. Sedimentary environments of major coastal types. Ecology and biogeochemical relationships, including benthic and planktonic characteristics. Coastal evolution with sea level rise. Human impacts: eutrophication, modification of sedimentation. The coastal future: rising sea level, hypoxia, and increased storminess.

0101	Ralph Getzandanner M 4:00pm - 6:30pm	Seats (Total: 40) TYD 0117

GEOG472 **Remote Sensing: Digital Processing and Analysis**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Prerequisite: GEOG372 and GEOG306; or students who have taken courses with comparable content may contact the department. Credit only granted for: GEOG472 or GEOG480. Formerly: GEOG480.

Digital image processing and analysis applied to satellite and aircraft land remote sensing data. Consideration is given to preprocessing steps including calibration and geo registration. Analysis methods include digital image exploration, feature extraction thematic classification, change detection, and biophysical characterization. One or more application examples may be reviewed.

Students must pay a $40.00 lab materials fee. Restriction: Open to GEOG, GIS, & ENSP-Coastal, Land Use, Global majors only.

0101	Dongdong Wang	Seats (Total: 25)	
	TuTh 9:30am - 10:45am Th 11:00am - 1:00pm	LEF 1158 LEF 1138	Lab
	Restriction: Open to GEOG, GIS, & ENSP-Coastal, Land Use, Global majors only.		

GEOG473 **Geographic Information Systems and Spatial Analysis**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Prerequisite: GEOG306 and GEOG373; or students who have taken courses with comparable content may contact the department. Credit only granted for: GEOG473 or GEOG482. Formerly: GEOG482.

Analytical uses of geographic information systems; data models for building geographic data bases; types of geographic data and spatial problems; practical experience using advanced software for thematic domains such as terrain analysis, land suitability modeling, demographic analysis, and transportation studies.

Students must pay a $40.00 lab materials fee. Restriction: Open to GEOG, GIS, & ENSP-Coastal, Land Use, Global majors only.

0101	Naijun Zhou	Seats (Total: 25)	
	MW 10:00am - 10:50am F 11:00am - 1:00pm	LEF 2166 LEF 1138	Lab
	Restriction: Open to GEOG, GIS, and ENSP-Coastal, Land Use, Global majors only.		
0102	Naijun Zhou	Seats (Total: 25)	
	MW 10:00am - 10:50am F 1:00pm - 3:00pm	LEF 2166 LEF 1138	Lab

GEOG498 **Topical Investigations**

(Perm req)

Credits: 1-3 Grading Method: Regular, Pass-Fail, Audit

Independent study under individual guidance.

Contact department for information to register for this course.

GEOG498I **Topical Investigations; Algorithms for Geospatial Computing**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Independent study under individual guidance.

Cross-listed with CMSC498Q and GEOG788I. Credit only granted for GEOG498I, CMSC498Q, or GEOG788I. Geometric primitives and algorithms for discrete and continuous spatial data processing. Point data representation and analysis: spatial data structures, neighbor finding and range queries, clustering algorithms. Terrain modeling: grids and triangle meshes, algorithms and data structures for building and querying triangulated terrain models. Terrain analysis: segmentation through watershed computation, algorithms for visibility computation. Applications to LiDAR data processing and analysis for terrain reconstruction, urban modeling, forest management and coastal areas modeling. Algorithms for road network analysis and reconstruction from GPS and satellite images.

0101	Rachel Berndtson, Leila De Floriani	Seats (Total: 24)
	TuTh 12:30pm - 1:45pm	LEF 1158

GEOG603 **Masters Research Tutorial**

Credits: 3 Grading Method: Regular, Audit, Sat-Fail

Prerequisite: GEOG600. Restriction: Permission of BSOS-Geography department. Credit only granted for: GEOG603 or GEOG610. Formerly: GEOG610.

Development of Masters scholarly paper topic, critical literature review, formulation of geographical approach to research methodology. Individual meetings with faculty. Comprehensive exam before the end of the semester.

Contact department for information to register for this course.

GEOG608 **Comprehensive Portfolio Assessment Summary**

Credits: 1-3 Grading Method: Sat-Fail

Evaluation of a PhD student's portfolio.

Contact department for information to register for this course.

GEOG615 **Land Cover and Land Use Change**

Credits: 3 Grading Method: Regular, Audit, Sat-Fail

Prerequisite: GEOG442, GEOG472, GEOG435, or GEOG473; or permission of BSOS-Geography department.

This class provides an examination of land cover and land use change science, addressing the causes, impacts and projection of change. Key concepts of land use science are presented and recent research papers and case studies are reviewed. Class consists of lectures, invited presentations and individual student projects and presentations.

0101	George Hurtt	Seats (Total: 10)	
	TuTh 2:00pm - 3:15pm	LEF 1158	

GEOG646 **Programming for GIS**

Credits: 3 Grading Method: Regular, Audit, Sat-Fail

Additional information: This class is recommended for all MSGIS students who have no prior computer programming background as well as those who wish to have additional practice. The skills learned in this class will be useful for more advanced courses such as GEOG656 (Programming and Scripting for GIS), GEOG657 (Web Programming), and GEOG650 (Mobile GIS).

An introduction to computer programming using Python and web programming languages. It is required for students in the MSGIS program before they enroll in more advanced programming courses (GEOG656 and GEOG657). This course teaches students the fundamentals concepts of computer science. Students will learn about the components of a computer program such as data management, conditional statements, iterative statements, and file processing. Students will develop programs and web apps for the purpose of automating tasks and assisting with data analysis.

GI01	Rejanne Le Bivic	Seats (Total: 25)	
	Meets February 27, 2020 - May 20, 2020		
	M 5:30pm - 8:00pm	LEF 1220	
	Tu 5:30pm - 7:30pm	LEF 1220	Lab

GEOG651 **Spatial Statistics**

Credits: 3 Grading Method: Regular, Sat-Fail

Prerequisite: GEOG615; or students who have taken courses with comparable content may contact the department. Restriction: Must be in Geospatial Information Sciences (Master's) program; or must be in Graduate Certificate: Professional Studies-Geospatial Information Sciences.

This course is about quantitative analysis of spatial data. It is intended to provide a broad survey of various methods of exploratory statistical data analysis most useful in environmental and social sciences. The course is a mix of theory, methods, and applications geared towards helping students: (1) develop an understanding of the important theoretical concepts in spatial data analysis; and (2) gain practical experience in application of spatial statistics to a variety of social and environmental problems using advanced statistical software.

Contact department for information to register for this course.

GEOG653 **Spatial Analysis**

Credits: 3 Grading Method: Regular, Sat-Fail

Prerequisite: GEOG579 or GEOG506; or students who have taken courses with comparable content may contact the department. Restriction: Must be in Geospatial Information Sciences (Master's) program; or must be in the Geospatial Information Sciences (Graduate Certificate) program.

Methods of spatial analysis including measuring aspects of geometric features and identifying spatial patterns of geospatial objects that are represented as point, line, network, areal data, and 3-D surfaces.

Restriction: Must be in Master of Science in Geospatial Information Sciences program. For permission to enroll, contact geog-gis@umd.edu. Students must pay a $40 lab fee.

Click here for program information.

GI01	Jianguo Ma	Seats (Total: 50)	
	Meets February 27, 2020 - May 20, 2020		
	W 5:30pm - 8:00pm Th 5:30pm - 8:00pm	LEF 1158 LEF 1136	Lab
GI02	Jianguo Ma	Seats (Total: 10)	
	Meets February 27, 2020 - May 20, 2020		
	W 5:30pm - 8:00pm Th 5:30pm - 8:00pm	LEF 1158 LEF 1136	Lab

GEOG654 **GIS and Spatial Modeling**

Credits: 3 Grading Method: Regular, Sat-Fail

Prerequisite: GEOG653. Restriction: Must be in Geospatial Information Sciences (Master's) program; or must be in Graduate Certificate: Professional Studies-Geospatial Information Sciences.

Provide foundations and understanding on various issues related to modeling and simulation in GIS context. It will addresses the concepts, tools, and techniques of GIS modeling, and presents modeling concepts and theory as well as provides opportunities for hands-on model design, construction, and application. The focus will be on raster-based modeling. This course is also application-orientated, particularly in these fields such as terrain modeling, LULC modeling, hydrological modeling, suitability modeling, etc.

Contact department for information to register for this course.

GEOG655 **Spatial Database System**

Credits: 3 Grading Method: Regular, Sat-Fail

Prerequisite: GEOG653. Restriction: Must be in Geospatial Information Sciences (Master's) program; or must be in Graduate Certificate: Professional Studies-Geospatial Information Sciences.

This course is designed to help students understand, analyze, design, and implement spatial databases. While the basic concepts and theories of database will be introduced, the focus of this course will be on providing students with hands-on experiences to practice the technical skills used in spatial database design and implementation. SQL, Oracle, and ArcSDE are the key topics.

Restriction: Must be in Master of Science in Geospatial Information Sciences program. For permission to enroll, contact geog-gis@umd.edu. Students must pay a $40 lab fee.

Click here for program information.

CG01	Mingguang Wu **Meets March 13, 2020 - June 7, 2020** F 8:30am - 12:15pm	Seats (Total: 16) ONLINE	
GI01	Naijun Zhou **Meets February 27, 2020 - May 20, 2020** W 6:30pm - 9:00pm Th 6:30pm - 8:00pm	Seats (Total: 50) LEF 1171 LEF 1138	 Lab
GI02	Naijun Zhou **Meets February 27, 2020 - May 20, 2020** W 6:30pm - 9:00pm Th 6:30pm - 8:00pm	Seats (Total: 10) LEF 1171 LEF 1138	 Lab

GEOG660 Advanced Remote Sensing Using Lidar

Credits: 3 Grading Method: Regular, Sat-Fail

Prerequisite: GEOG652. Recommended: GEOG656 and GEOG654. Credit only granted for: GEOG660 or GEOG788G. Formerly: GEOG788G.

Lidar, also known as laser scanning, is an active remote sensing tool that can produce high-resolution point clouds. Lidar is being applied to problems such as terrain modeling, biomass estimation, change detection, feature extraction, and measuring tree canopy. Topics covered are fundamentals of lidar, current developments in lidar technology, and different applications where lidar is being used. Students will get hands-on learning about lidar data management, processing, and analysis.

Contact department for information to register for this course.

GEOG662 **Advances in GIS and Remote Sensing**

Credits: 3 | Grading Method: Regular, Audit, Sat-Fail

Restriction: Students taking the course must be familiar with data structures, basic GIS and RS concepts, and demonstrate basic understanding of using GIS and RS software. And must be enrolled in Geographical Sciences MPS or graduate certificate program; or permission of BSOS-Geography department.

Focuses on state-of-the-art advances in geographic information science and remote sensing as they support geospatial intelligence. Focus on synergies between GIS and remote sensing in informatics, computer science, and spatial engineering, and their application to problem domains in human systems, physical systems, and cyberspace. Advances in GIS presents recent advances regarding fundamental issues of geo-spatial information science (space and time, spatial analysis, uncertainty modeling and geo-visualization), and new scientific and technological research initiatives for geo-spatial information science (such as spatial data mining, mobile data modeling, and location-based services). Advances in remote sensing will provide opportunity to understand and work with latest developments in the Remote Sensing datasets. The curriculum covers wide range of remote sensing data interpretation and their processing techniques.

GI01	Ruibo Han	Seats (Total: 15)	
	Meets February 27, 2020 - May 20, 2020		
	M 5:30pm - 8:00pm	LEF 1106	
	Tu 5:30pm - 8:00pm	LEF 1106	Lab

GEOG670 **Open Source GIS**

Credits: 3 | Grading Method: Regular, Sat-Fail

Credit only granted for: GEOG670 or GEOG788A. Formerly: GEOG788A. Additional information: Students do not need any experience using open source GIS, but students are expected to be comfortable using a desktop GIS such as ArcGIS.

An exploration of techniques for using Free and Open Source Software for GIS (FOSS4g) from conception to final presentation of results. Advanced concepts and techniques including enterprise GIS, spatial SQL, parallel processing, and displaying the results of GIS analysis over the Internet will also be covered.

Must be in Master of Science in Geospatial Information Sciences program.

Click here for program information.

GI01	Eunjung Lim	Seats (Total: 25)	
	Meets February 27, 2020 - May 20, 2020		
	M 5:30pm - 8:00pm	LEF 1166	
	Tu 5:30pm - 8:00pm	LEF 1166	Lab

GEOG676 **Advanced Programming for Geography and Remote Sensing**

Credits: 3 Grading Method: Regular, Audit, Sat-Fail

Prerequisite: GEOG376; or permission of BSOS-Geography department.

Comprehensive instruction is provided in the advanced use of a commercial programming language and analysis tool used for scientific programming and data visualization, with an emphasis on applications in geography and remote sensing or GIS.

Students must pay a $40 lab fee.

0101	Louis Giglio, Rachel Berndtson	Seats (Total: 24)	
	Tu 4:00pm - 6:30pm	SQH 1111	

GEOG682 **Open Source Intelligence**

Credits: 3 Grading Method: Regular, Audit, Sat-Fail

Open Source Intelligence (OSINT) is information that is publicly available that is collected and analyzed to support decision-making. The collection and analysis of OSINT is often considered to be the first step in developing an all-source intelligence product, where OSINT is fused with Geospatial Intelligence (GEOINT), Signals Intelligence (SIGINT), and Measurement and Signature Intelligence (MASINT), and Human Intelligence (HUMINT). In this course you will learn about the sources, ethics, and methods that are associated with OSINT, and will also develop knowledge and skills related to open-source geospatial technologies and organizations such as the Open Geospatial Consortium (OGC).

GI01	Micah Brachman	Seats (Total: 15)	
	Meets February 27, 2020 - May 20, 2020		
	M 5:30pm - 8:00pm	LEF 1222	
	Tu 5:30pm - 8:00pm	LEF 1222	Lab

GEOG683 **Hazards and Emergency Management**

Credits: 3 Grading Method: Regular, Sat-Fail

Timely and accurate Geospatial Intelligence (GEOINT) is essential for protecting people from hazardous events such as floods, wildfires, tsunamis, hurricanes, industrial accidents, and terrorist attacks. GEOINT plays a critical role in all four stages of emergency management: preparedness, mitigation, response, and recovery. The use of remote sensing and Geographic Information Systems (GIS) before, during, and after Hurricane Katrina and the 9/11 terror attacks are two of the case studies that are discussed during this course. You will develop a deeper understanding of the emergency management successes and failures that occurred during these historic and deadly events, and learn the technical skills to develop and disseminate GEOINT products that support decision-making at all four stages of emergency management.

Timely and accurate Geospatial Intelligence (GEOINT) is essential for protecting people from hazardous events such as floods, wildfires, tsunamis, hurricanes, industrial accidents, and terrorist attacks. GEOINT plays a critical role in all four stages of emergency management: preparedness, mitigation, response, and recovery. The use of remote sensing and Geographic Information Systems (GIS) before, during, and after Hurricane Katrina and the 9/11 terror attacks are two of the case studies that are discussed during this course. You will develop a deeper understanding of the emergency management successes and failures that occurred during these historic and deadly events, and learn the technical skills to develop and disseminate GEOINT products that support decision-making at all four stages of emergency management.

GI01	Micah Brachman	Seats (Total: 15)	
	Meets February 27, 2020 - May 20, 2020		
	W 5:30pm - 8:00pm	LEF 1106	
	Th 5:30pm - 8:00pm	LEF 1106	Lab

GEOG697 **Capstone Project**

Credits: 3 Grading Method: Regular, Audit, Sat-Fail

Prerequisite: 24 credits in GEOG courses. Restriction: Students taking the course must be familiar with data structures, basic GIS and RS concepts, and demonstrate basic understanding of using GIS and RS software. And must be enrolled in Geographical Sciences MPS or graduate certificate program; or permission of BSOS-Geography department.

An independent research project that demonstrates competence in geospatial intelligence technologies. This project can originate from an internship, from relevant work at a current or past employer, or can be developed in conjunction with a department faculty. The student will prepare a project report and presentation which shall contain an executive summary, background information including a literature review and establishment of requirements, a detailed technical description of the project data and methods, a discussion of results obtained, and final conclusions and recommendations. The final project submission will include all data, computer code and/or workflow documentation required to replicate the project results. In completing this project, students develop a concrete example of how GEOINT technologies can be applied to solve real-world problems, and begin developing a portfolio that can be presented to potential employers.

An independent research project that demonstrates competence in geospatial intelligence technologies. This project can originate from an internship, from relevant work at a current or past employer, or can be developed in conjuction with a department faculty. The student will prepare a project report and presentation which shall contain an executive summary, background information including a literature review and establishment of requirements, a detailed techincal description of the project data and methods, a discussion of results obtained, and final conclusions and recommendations. The final project submission will include all data, computer code and/or workflow documentation required to replicate the project results. In completing this project, students develop a concrete example of how GEOINT technologies can be applied to solve real-world problems, and begin developing a portfolio that can be presented to potential employers.

GI01	Jonathan Resop	Seats (Total: 15)	
	Meets February 27, 2020 - May 20, 2020		
	M 5:30pm - 8:00pm	Location: TBA	
	Tu 5:30pm - 8:00pm	ONLINE	Lab

GEOG788 **Selected Topics in Geography**

(Perm req)

Credits: 1-3 Grading Method: Regular, Sat-Fail

Readings and discussion on selected topics in the field of geography.

Repeatable to 6 credits if content differs.

Contact department for information to register for this course.

GEOG788I **Selected Topics in Geography; Algorithms for Geospatial Computing**

Credits: 3 Grading Method: Regular, Audit, Sat-Fail

Readings and discussion on selected topics in the field of geography.

Cross-listed with CMSC498Q and GEOG498I. Credit only granted for GEOG498I, CMSC498Q, or GEOG788I. Geometric primitives and algorithms for discrete and continuous spatial data processing. Point data representation and analysis: spatial data structures, neighbor finding and range queries, clustering algorithms. Terrain modeling: grids and triangle meshes, algorithms and data structures for building and querying triangulated terrain models. Terrain analysis: segmentation through watershed computation, algorithms for visibility computation. Applications to LiDAR data processing and analysis for terrain reconstruction, urban modeling, forest management and coastal areas modeling. Algorithms for road network analysis and reconstruction from GPS and satellite images

0101	Rachel Berndtson, Leila De Floriani	Seats (Total: 24)
	TuTh 12:30pm - 1:45pm	LEF 1158

GEOG789 **Independent Readings**

(Perm req)

Credits: 1-3

Grading Method: Regular, Audit, Sat-Fail

Independent reading as arranged between a graduate faculty member and graduate student.

Repeatable to 6 credits if content differs.

Contact department for information to register for this course.

GEOG790 **Internship in Geography**

Credits: 3

Grading Method: Regular, Audit, Sat-Fail

Field experience in the student's specialty in a Federal, state, or local agency or private business. Research paper required.

Contact department for information to register for this course.

GEOG797 **Professional Project**

Credits: 3

Grading Method: Regular, Sat-Fail

Prerequisite: GEOG795; and must have completed or be concurrently enrolled in ENCE662. Restriction: Must be in Geospatial Information Sciences (Master's) program.

Data and materials can originate from an internship (internal or external) or from relevant work experience with current employer. Under direction of faculty advisor, students will prepare a project report containing explanation of the requirements for the work, technical account of the activities undertaken, including literature review, description of methods and approaches taken, a critical discussion of results, along with conclusions and recommendations developed from the project. Final project will consist of a full-fledged GIS application that is up and running and can be tested, providing potential employers with a portfolio demonstrating student's ability to manage and develop a GIS application in real world situations.

Restriction: Must be in Master of Science in Geospatial Information Sciences program. For permission to enroll, contact geog-gis@umd.edu. Students must pay a $40 lab fee.

Click here for program information.

GI01	Eunjung Lim, Jonathan Resop	Seats (Total: 50)	
	Meets February 27, 2020 - May 20, 2020		
	M 5:30pm - 8:00pm	LEF 1171	
	Tu 5:30pm - 8:00pm	ONLINE	Discussion

GI02	Eunjung Lim, Jonathan Resop **Meets February 27, 2020 - May 20, 2020** M 5:30pm - 8:00pm Tu 5:30pm - 8:00pm	Seats (Total: 15) LEF 1171 ONLINE	 Discussion
GI03	Eunjung Lim, Jonathan Resop **Meets February 27, 2020 - May 20, 2020** M 5:30pm - 8:00pm Tu 5:30pm - 8:00pm	Seats (Total: 15) LEF 1171 ONLINE	 Discussion

GEOG798 **Selected Topics in Geography: Seminar Series; Seminar Series**

Credits: 1 Grading Method: Regular, Audit, Sat-Fail

Readings and discussions on selected topics in the field of geography.

0101	Rachel Berndtson Th 3:45pm - 5:15pm	Seats (Total: 48) LEF 1158

GEOG799 **Master's Thesis Research**

(Perm req)

Credits: 1-6 Grading Method: Sat-Fail

Contact department for information to register for this course.

GEOG898 **Pre-Candidacy Research**

(Perm req)

Credits: 1-8 Grading Method: Regular, Sat-Fail

Contact department for information to register for this course.

GEOG899 **Doctoral Dissertation Research**

(Perm req)

Credits: 6 Grading Method: Sat-Fail

Contact department for information to register for this course.

GEOL Geology Spring 2020

GEOL100 **Physical Geology**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

General Education: DSNL (if taken with GEOL110), DSNS

Credit only granted for: GEOL100 or GEOL120. Additional information: CORE Distributive Studies Physical Science Laboratory Course only when taken concurrently with GEOL 110.

A general survey of the rocks and minerals composing the earth, its surface features and the agents that form them, and the dynamic forces of plate tectonics.

0101	Tracey Centorbi MWF 1:00pm - 1:50pm	Seats (Total: 95) ESJ 1202	
0201	Tracey Centorbi TuTh 2:00pm - 3:15pm	Seats (Total: 95) PLS 1140	

GEOL102 **Historical Geology**

Credits: 4 Grading Method: Regular, Pass-Fail, Audit

Prerequisite: GEOL120 or GEOL100; and GEOL110. Or permission of CMNS-Geology department.

Earth's history as revealed through the principles of stratigraphy and the processes of physical geology. Emphasis on formations and geologic development of the North American continent.

0101	Thomas Holtz MWF 9:00am - 9:50am W 2:00pm - 5:00pm	Seats (Total: 24) PLS 1113 GEO 2107	 Lab

GEOL110 **Physical Geology Laboratory**

Credits: 1 Grading Method: Regular, Pass-Fail

Prerequisite: Must have completed or be concurrently enrolled in GEOL120 or GEOL100. Additional information: CORE Distributive Studies Physical Science Laboratory Course only when taken concurrently with GEOL 100.

The basic materials and tools of physical geology stressing familiarization with rocks and minerals and the use of maps in geologic interpretations.

Students must pay a $50.00 lab materials fee.

0101	Goeun Ha, Tracey Centorbi M 3:00pm - 6:00pm	Seats (Total: 24) GEO 2106	 Lab
0201	Tracey Centorbi, Karla Nunez M 12:00pm - 3:00pm	Seats (Total: 24) GEO 2106	 Lab

0301	Tracey Centorbi, Heidi Myers Tu 9:00am - 12:00pm	Seats (Total: 24) GEO 2106	Lab
0401	Tracey Centorbi, Heidi Myers Tu 4:00pm - 7:00pm	Seats (Total: 24) GEO 2106	Lab
0501	William Hoover, Tracey Centorbi Th 9:00am - 12:00pm	Seats (Total: 24) GEO 2106	Lab
0601	Tracey Centorbi, William Hoover Th 4:00pm - 7:00pm	Seats (Total: 24) GEO 2106	Lab
0901	Karla Nunez, Tracey Centorbi W 3:00pm - 6:00pm	Seats (Total: 24) GEO 2106	Lab

GEOL120 **Environmental Geology**

Credits: 3	Grading Method: Regular, Pass-Fail, Audit	CORE: PS	General Education: DSNL (if taken with GEOL110), DSNS

Credit only granted for: GEOL100 or GEOL120.

A review of geologic factors underlying many environmental problems and the interactions between population and physical environment: geologic hazards, land-use planning, conservation, mineral resources, waste disposal, land reclamation, and the geologic aspects of health and disease. The course is aimed at lower division students in education and liberal arts, and should be useful to any student concerned with geologic perspectives of environmental problems.

0201	Sujay Kaushal TuTh 3:30pm - 4:45pm W 3:00pm - 3:50pm	Seats (Total: 20) CHM 1402 ATL 1106	Discussion
0202	Sujay Kaushal TuTh 3:30pm - 4:45pm W 4:00pm - 4:50pm	Seats (Total: 20) CHM 1402 ATL 1106	Discussion
0203	Sujay Kaushal TuTh 3:30pm - 4:45pm W 5:00pm - 5:50pm	Seats (Total: 20) CHM 1402 ATL 1106	Discussion
0204	Sujay Kaushal TuTh 3:30pm - 4:45pm W 3:00pm - 3:50pm	Seats (Total: 20) CHM 1402 PLS 1168	Discussion

0205	Sujay Kaushal TuTh 3:30pm - 4:45pm W 4:00pm - 4:50pm	Seats (Total: 20) CHM 1402 PLS 1168	Discussion
0206	Sujay Kaushal TuTh 3:30pm - 4:45pm W 5:00pm - 5:50pm	Seats (Total: 20) CHM 1402 PLS 1168	Discussion

GEOL123 **Causes and Consequences of Global Change**

Credits: 3	Grading Method: Regular, Pass-Fail, Audit	CORE: PS	General Education: DSNS, SCIS

Cross-listed with AOSC123. Credit only granted for: AOSC123, GEOG123, GEOL123, or METO123.

Study of the major components of Earth's climate system and climate change history. Discussion of 21st century climate change prediction, mitigation and adaptation efforts.

0101	Rachel Pinker MW 12:00pm - 12:50pm F 9:00am - 9:50am	Seats (Total: 20) ATL 2324 PLS 1164	Discussion
0102	Rachel Pinker MW 12:00pm - 12:50pm F 10:00am - 10:50am	Seats (Total: 20) ATL 2324 PLS 1164	Discussion
0103	Rachel Pinker MW 12:00pm - 12:50pm F 11:00am - 11:50am	Seats (Total: 20) ATL 2324 PLS 1164	Discussion
0104	Rachel Pinker MW 12:00pm - 12:50pm F 9:00am - 9:50am	Seats (Total: 20) ATL 2324 PLS 1172	Discussion
0105	Rachel Pinker MW 12:00pm - 12:50pm F 10:00am - 10:50am	Seats (Total: 20) ATL 2324 PLS 1172	Discussion
0106	Rachel Pinker MW 12:00pm - 12:50pm F 11:00am - 11:50am	Seats (Total: 20) ATL 2324 PLS 1172	Discussion

GEOL204 **Dinosaurs, Early Humans, Ancestors, and Evolution; The Fossil Record of Vanished Worlds of the Prehistoric Past**

Credits: 3 | Grading Method: Regular, Pass-Fail, Audit | CORE: PS | General Education: DSNS, SCIS

Examination of evidence used to reconstruct critical events in the history of life by looking at case studies of significant evolutionary origins, transitions, and extinctions; addressing the role of paleontology in human society, including science education, conservation, and the media.

0101	Thomas Holtz TuTh 9:30am - 10:45am M 3:00pm - 3:50pm	Seats (Total: 20) ESJ 2208 PLS 1158	Discussion
0102	Thomas Holtz TuTh 9:30am - 10:45am M 4:00pm - 4:50pm	Seats (Total: 20) ESJ 2208 PLS 1158	Discussion
0103	Thomas Holtz TuTh 9:30am - 10:45am M 5:00pm - 5:50pm	Seats (Total: 20) ESJ 2208 PLS 1158	Discussion
0104	Thomas Holtz TuTh 9:30am - 10:45am M 3:00pm - 3:50pm	Seats (Total: 20) ESJ 2208 PLS 1168	Discussion
0105	Thomas Holtz TuTh 9:30am - 10:45am M 4:00pm - 4:50pm	Seats (Total: 20) ESJ 2208 PLS 1168	Discussion
0106	Thomas Holtz TuTh 9:30am - 10:45am M 5:00pm - 5:50pm	Seats (Total: 20) ESJ 2208 PLS 1168	Discussion

GEOL288A **Field Studies I; Natural History of Arizona**

Credits: 1 | Grading Method: Regular, Pass-Fail

Examination and investigation of Earth Science phenomena in the field, particularly geology. Involves fieldwork of one week or longer duration, which work normally includes both observation and data collection. Particular programs may require certain prerequisites. Permission of Instructor is required. Special fees may be necessary.

Contact department for information to register for this course.

GEOL322 **Mineralogy**

Credits: 4 Grading Method: Regular, Pass-Fail, Audit

Prerequisite: GEOL120 or GEOL100; and GEOL110. And CHEM131 and CHEM132; or (CHEM135 and CHEM136); or CHEM103. Restriction: Permission of instructor is required for non-degree seeking students.

Basic mineralogy for geology majors. The principles of morphologic crystallography, crystal chemistry, and determinative mineralogy.

0101	Megan Newcombe	Seats (Total: 22)	
	TuTh 11:00am - 12:15pm	PLS 1111	
	M 1:00pm - 3:50pm	GEO 2107	Lab

GEOL340 **Geomorphology**

Credits: 4 Grading Method: Regular, Pass-Fail, Audit

Prerequisite: GEOL120 or GEOL100. Restriction: Permission of instructor is required of non-degree seeking students.

Analysis of landforms, organized on the basis of the geologic processes that have operated during the late Cenozoic. Constructional and erosional landforms related to physical systems operating on geologic structures through time.

0101	Karen Prestegaard	Seats (Total: 24)	
	TuTh 9:30am - 10:45am	PLS 1117	
	W 10:00am - 1:00pm	GEO 2107	Lab

GEOL341 **Structural Geology**

Credits: 4 Grading Method: Regular, Pass-Fail, Audit

Prerequisite: GEOL120 or GEOL100; and GEOL102; and GEOL110. Or permission of CMNS-Geology department. Restriction: Permission of instructor is required of non-degree seeking students.

Study of the deformation of Earth's lithosphere, especially stress, rheology, strain, and the origin and significance of structural features. Development of 3-dimensional thinking through drafting and drawing of structures, construction of geologic maps and cross-sections, and stereographic and orthographic representation of structures. Improvement of scientific writing. Two weekend field trips.

0101	Mong-Han Huang MWF 9:00am - 9:50am M 10:00am - 1:00pm	Seats (Total: 20) PLS 1158 GEO 2107	 Lab

GEOL393 **Geology Senior Thesis I: Proposal**

(Perm req)

Credits: 3 Grading Method: Regular, Pass-Fail

Prerequisite: PHYS141 and MATH141. And CHEM131 and CHEM132; or (CHEM135 and CHEM136). And must have completed at least two upper-level geology courses and be concurrently enrolled in a third. Restriction: Junior standing or higher; and must be in Geology program; and non-degree-seeking students require the permission of the instructor.

The first semester of the two-semester Geology Senior Thesis. Emphasis is on developing a plan for original research in the geosciences and presenting that plan both in writing and in public presentations that adhere to geosciences professional standards.

0101	Philip Piccoli Tu 4:30pm - 6:30pm Contact instructor or department for details.	Seats (Total: 10) PLS 1158

GEOL394 **Geology Senior Thesis II: Research**

Credits: 3 Grading Method: Regular, Pass-Fail CORE: CS General Education: DSSP

Prerequisite: GEOL393; and must have completed at least three upper level GEOL courses. Restriction: Must be in Geology program; and junior standing or higher; and in addition, non-degree-seeking students require the permission of the department.

The second semester of the two-semester Geology Senior Thesis. Investigation of specific original research question in geosciences. Emphasis is on completion of original research proposed in GEOL393 and presentation of results both in writing and in public presentations that adhere to geosciences professional standards.

Contact department for information to register for this course.

GEOL412 **Geology of the Terrestrial Planets**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Prerequisite: GEOL341 or GEOL340. Credit only granted for: GEOL489A or GEOL412. Formerly: GEOL489A.

Geological features of Mercury, Venus, Mars and the Moon with an emphasis on results from recent NASA planetary mission. Topics include interior structure, impact cratering, tectonic and volcanic history, surface conditions, climate change, and habitability.

0101	Laurent Montesi	Seats (Total: 10)	
	TuTh 9:30am - 10:45am	PLS 1164	

GEOL437 **Global Climate Change: Past and Present**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Prerequisite: MATH115 or MATH140; and (GEOL100 or GEOL120); and (CHEM131 or CHEM135); and (CHEM132 or CHEM136).

Introduction to the processes by which climate varies, the paleoclimate record, and projections of climate change into the 21st century, including discussion of climate sensitivity to external radiative forcing.

0101	Michael Evans	Seats (Total: 20)	
	TuTh 11:00am - 12:15pm	PLS 1164	

GEOL443 **Petrology**

Credits: 4 Grading Method: Regular, Pass-Fail, Audit

Prerequisite: GEOL322. And CHEM131 and CHEM132; or (CHEM135 and CHEM136); or CHEM103. And must have completed or be concurrently enrolled in GEOL423; and (GEOL100 or GEOL120); and GEOL110. Corequisite: Permission of CMNS-Geology department. Restriction: Non-degree-seeking students require the permission of the instructor.

Study of igneous and metamorphic rocks: petrogenesis, distributions, chemical and mineralogical relations, macroscopic and microscopic descriptions, geologic significance.

0101	Sarah Penniston-Dorland, Richard Walker	Seats (Total: 18)	
	TuTh 8:00am - 9:15am	PLS 1113	
	Th 1:00pm - 4:00pm	GEO 2117	Lab

GEOL456 **Engineering Geology**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Prerequisite: PHYS141 and MATH141; and (GEOL120 or GEOL100). Or permission of CMNS-Geology department. Restriction: Non-degree-seeking students require the permission of the instructor. Credit only granted for: GEOL456 or GEOL489Z. Formerly: GEOL489Z.

An overview of engineering geology with an emphasis on physical understanding of natural hazards and natural resources. General theories of stress and strain, failure criteria, frictional stability, fluid flow in porous media and poroelasticity are introduced. Quantitative approaches on earthquakes, landslides, land subsidence, and geotechnical aspects of oil/gas exploration are discussed.

0101	Wenlu Zhu	Seats (Total: 10)
	TuTh 12:30pm - 1:45pm	PLS 1115

GEOL488 Geology Colloquium; Geology Colloquium

Credits: 1 Grading Method: Sat-Fail

Contemporary research topics and issues in geosciences are explored through the weekly Geology departmental colloquium and discussion of its contents.

0101	Mong-Han Huang	Seats (Total: 30)
	F 3:00pm - 4:30pm	Location: TBA

GEOL497 Recent Advances: Geology

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Prerequisite: Must have completed at least 2 upper-level GEOL courses. Corequisite: GEOL393; and a third upper-level geology course. Restriction: Must be in Geology program; and GPA of 3.0 or better in both overall and in all courses required for the major; and senior standing; and to be taken as late as possible in the program. Credit only granted for: GEOL497 or GEOL489H. Formerly: GEOL489H.

A survey of important recent advances in geological sciences in the context of the methods and practices of scientific research.

0101	Michael Brown	Seats (Total: 10)	
	W 8:00am - 8:50am	PLS 1164	
	F 3:00pm - 4:00pm	Location: TBA	
	M 2:00pm - 4:00pm	PLS 1117	Discussion

GEOL497H Recent Advances: Geology

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Prerequisite: Must have completed at least 2 upper-level GEOL courses. Corequisite: GEOL393; and a third upper-level geology course. Restriction: Must be in Geology program; and GPA of 3.0 or better in both overall and in all courses required for the major; and senior standing; and to be taken as late as possible in the program. Credit only granted for: GEOL497 or GEOL489H. Formerly: GEOL489H.

A survey of important recent advances in geological sciences in the context of the methods and practices of scientific research.

0101	Michael Brown	Seats (Total: 10)	
	W 8:00am - 8:50am	PLS 1164	
	F 3:00pm - 4:00pm	Location: TBA	
	M 2:00pm - 4:00pm	PLS 1117	Discussion

GEOL499 **Special Problems in Geology**

(Perm req)

Credits: 1-3 Grading Method: Regular, Pass-Fail, Audit

Intensive study of a special geologic subject or technique selected after consultation with instructor. Intended to provide training or instruction not available in other courses which will aid the student's development in his or her field of major interest.

Prerequisites: GEOL100 or GEO120, GEOL110, GEOL102; or equivalent; and permission of department. In addition, non-degree-seeking students require the permission of the instructor. Intensive study of a special geologic subject or technique selected after consultation with instructor. Intended to provide training or instruction not available in other courses which will aid the student's development in his or her field of major interest.

Contact department for information to register for this course.

GEOL612 **Geology and Geophysics of the Terrestrial Planets**

Credits: 3 Grading Method: Regular, Audit, Sat-Fail

Prerequisite: Permission of CMNS-Geology department; or (GEOL446 and MATH141). Recommended: Familiarity with MATLAB or MATHEMATICA. Credit only granted for: GEOL680 or GEOL789A. Formerly: GEOL789A.

Geological features of Mercury, Venus, Mars and the Moon with an emphasis on results from recent NASA planetary mission. Class is organized to follow geological processes or observation throughout the inner solar system. Topics covered include interior structure, impact cratering, tectonic and volcanic history, surface conditions and climate change.

0101	Laurent Montesi	Seats (Total: 10)
	TuTh 9:30am - 10:45am	PLS 1164

GEOL654 **Fluvial Geomorphology Seminar**

Credits: 3 Grading Method: Regular, Audit, Sat-Fail

Recommended: GEOL452 and GEOL340. Restriction: Non-degree-seeking students require the permission of the instructor. Credit only granted for: GEOL654 or GEOL789B. Formerly: GEOL789B.

Fluvial geomorphology is the study of the movement of water and sedimentin stream channels. This includes: formation of channels, open channel hydraulics, sediment transport or bedload and suspended load, river morphology and landscape evolution. The course is designed for graduate students and advanced undergraduates.

0101	Karen Prestegaard Th 4:00pm - 6:30pm	Seats (Total: 12) Location: TBA

GEOL656 **Engineering and Environmental Geology**

Credits: 3 Grading Method: Regular, Audit, Sat-Fail

Prerequisite: GEOL100, GEOL110, MATH141, and PHYS141; or permission of instructor. Restriction: Non-degree-seeking students require the permission of the instructor. Credit only granted for: GEOL656 or GEOL789Z. Formerly: GEOL789Z.

An overview of mechanical aspects of earthquakes as a result of fault instability. Quantitative approaches on soil and rock strength, instability on earthquakes, landslides, land subsidence, and geotechnical aspects of oil/gas exploration are discussed. Emphasis is on theoretical framework of mechanics of earthquake and faulting, earthquake source mechanisms, earthquake scaling relations, the seismic cycle etc.

0101	Wenlu Zhu TuTh 12:30pm - 1:45pm	Seats (Total: 10) PLS 1115

GEOL688 **Geology Colloquium; Geology Colloquium**

Credits: 1 Grading Method: Sat-Fail

Contemporary research topics and issues in geosciences are explored through the weekly Geology departmental colloquium and discussion of its contents.

0101	Mong-Han Huang F 3:00pm - 4:30pm	Seats (Total: 30) Location: TBA

GEOL789B **Recent Advances in Geology; Planetary Habitability and Surface Chemistry**

Credits: 3

Grading Method: Regular, Audit, Sat-Fail

Recent advances in geology research.

An introduction to the fundamental principles of astrochemistry and astrobiology, followed by a survey of the geological history, surface habitability and biosignature preservation potential of bodies within our solar system and a survey of exoplanets.

0101	Ricardo Arevalo	Seats (Total: 10)
	TuTh 11:00am - 12:15pm	PLS 1172

GEOL789C **Recent Advances in Geology; Advanced Data Analysis Workshop**

Credits: 3

Grading Method: Regular, Audit, Sat-Fail

Recent advances in geology research.

0101	Michael Evans	Seats (Total: 10)
	Tu 2:00pm - 4:45pm	PLS 1176

GEOL789M **Recent Advances in Geology; Machine Learning in Geoscience**

Credits: 3

Grading Method: Regular, Audit, Sat-Fail

Recent advances in geology research.

Prerequisites: Knowledge of computer programming, ideally Python or MATLAB; familiarity with linear algebra. Machine Learning (ML) techniques allow us to construct useful representations of complex datasets or simulations. They can be used to classify, approximate and infer relationships among variables. They can discover unanticipated patterns or structures and make predictions beyond what is possible to do with analytical techniques. In this graduate seminar, we will review the theory behind ML with a focus on recent progress, discuss applications of ML in the geoscience literature , and implement ML techniques including convolutional neural networks (CNN) and dimensionality reduction (TSNE, UMAP, etc.) to analyze datasets from geology, geophysics, geodesy, and geochemistry.

0101	Vedran Lekic	Seats (Total: 10)
	M 2:00pm - 4:30pm	ATL 1410

GEOL789R **Recent Advances in Geology; Geoscience Communication**

Credits: 3

Grading Method: Regular, Audit, Sat-Fail

Recent advances in geology research.

0101	Alan Kaufman F 8:00am - 10:45am Contact instructor or department for details.	Seats (Total: 15) HBK 0103

GEOL789V **Recent Advances in Geology; Remote Sensing in Geoscience**

Credits: 3 Grading Method: Regular, Audit, Sat-Fail

Recent advances in geology research.

0101	Mong-Han Huang Th 2:00pm - 4:30pm	Seats (Total: 10) PLS 1158

GEOL798 **Seminar in Geology**

(Perm req)

Credits: 1-3 Grading Method: Regular, Audit, Sat-Fail

Discussion of special topics in current literature in all phases of geology.

Contact department for information to register for this course.

GEOL799 **Master's Thesis Research**

Credits: 1-6 Grading Method: Sat-Fail

Contact department for information to register for this course.

GEOL898 **Pre-Candidacy Research**

Credits: 1-8 Grading Method: Regular, Sat-Fail

Contact department for information to register for this course.

GEOL899 **Doctoral Dissertation Research**

(Perm req)

Credits: 6 Grading Method: Sat-Fail

Contact department for information to register for this course.

GERM Germanic Studies Spring 2020

GERM103 **Intensive Elementary German**

Credits: 4 Grading Method: Regular, Pass-Fail, Audit

Prerequisite: Must have appropriate Foreign Language Placement Test (FLPT) score. Restriction: Must not have completed GERM102; and must not be a fluent/native speaker of German. Credit only granted for: GERM102 or GERM103.

Covers speaking, reading, writing, listening, and culture of German-speaking world.

0101	Hayley Derryberry MWF 10:00am - 10:50am Class time/details on ELMs *Class time/details on ELMS.*	Seats (Total: 25) JMZ 1120 ONLINE
0201	Marion Lindstrom MWF 1:00pm - 1:50pm Class time/details on ELMs	Seats (Total: 25) JMZ 3203 ONLINE

GERM149Z **Germanic Languages - Elementary II; Elementary Yiddish II**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Continuation of GERM148. May be repeated in a different language. Subtitle will reflect the language.

Jointly offered with JWST282. Credit granted for GERM149Z or JWST282.

0101	Adi Mahalel TuTh 12:30pm - 1:45pm Class time/details on ELMs *This is a Big Ten Academic Alliance Course-Share Course.*	Seats (Total: 20) JMZ 1205 ONLINE

GERM203 **Intensive Intermediate German**

Credits: 4 Grading Method: Regular, Pass-Fail, Audit CORE: HO

Prerequisite: GERM103; or must have appropriate Foreign Language Placement Test (FLPT) score. Restriction: Must not have completed GERM201; and must not have completed GERM202; and must not be a fluent/native speaker of German. Credit only granted for: GERM202 or GERM203.

Covers speaking, reading, writing, listening, and culture of German-speaking world.

0101	Dylan Lewis MWF 11:00am - 11:50am Class time/details on ELMs	Seats (Total: 25) JMZ 2117 ONLINE

0201	Jakovs Borodeckis	Seats (Total: 25)
	MWF 12:00pm - 12:50pm Class time/details on ELMs	JMZ 2117 ONLINE

GERM204 **German Grammar Review**

Credits: 3 | Grading Method: Regular, Pass-Fail, Audit | CORE: HO

Prerequisite: GERM203; or Must have appropriate Foreign Language Placement Test (FLPT) score. Restriction: Must not be a fluent/native speaker of German.

An in-depth study and analysis of selected grammatical topics in a contextualized framework.

0101	Regina Ianozi	Seats (Total: 25)
	TuTh 11:00am - 12:15pm	JMZ 0208

GERM255 **Once Upon a Time: Fairy Tales of the Brothers Grimm**

Credits: 3 | Grading Method: Regular, Pass-Fail | General Education: DSHU

Credit only granted for: GERM255 or GERM289G. Formerly: GERM289G. Additional information: Course is taught in English.

A critical examination of how fairy tales and folklore pervade and influence diverse facets of Western culture, ranging from issues of politics and national identity, ethics and morality, violence and fear, education and pedagogy, to gender and sexuality in the establishment and regulation of social norms. Taking the German tales collected by Jacob and Wilhelm Grimm as its focal point, the magical and often terrifying world of fairy tales within the German, European, and American cultural traditions from Romanticism to today will be explored.

0101	Julie Koser	Seats (Total: 30)
	TuTh 2:00pm - 3:15pm	JMZ 2206

GERM301 **Conversation and Composition I: The German-Speaking World**

Credits: 3 | Grading Method: Regular, Pass-Fail, Audit

Prerequisite: GERM204; or students who have taken courses with comparable content may contact the department.

Practice in contemporary spoken and written German. Systematic review of grammar, and exercises in composition. Emphasis on cultural contrasts in the German-speaking world.

0101	Regina Ianozi TuTh 12:30pm - 1:45pm	Seats (Total: 20) JMZ 0122

GERM302 **Conversation and Composition II: Current Topics in German-Speaking Society**

Credits: 3

Grading Method: Regular, Pass-Fail, Audit

Prerequisite: GERM301; or students who have taken courses with comparable content may contact the department.

Further practice in contemporary spoken and written German. Contemporary social, political, and cultural themes.

0101	Michael Lipkin TuTh 11:00am - 12:15pm	Seats (Total: 20) JMZ 1103

GERM319B **Selected Topics in Germanic Language Studies; German for the Professions**

Credits: 3

Grading Method: Regular, Pass-Fail

The analysis of the German language as a reflection of cultural, functional, and social practice in the German-speaking world.

Prerequisite: GERM301 or equivalent.

0101	Regina Ianozi TuTh 9:30am - 10:45am	Seats (Total: 20) JMZ 0122

GERM319G **Selected Topics in Germanic Language Studies; Seminar in German Language**

Credits: 3

Grading Method: Regular, Pass-Fail

The analysis of the German language as a reflection of cultural, functional, and social practice in the German-speaking world.

Contact department for information to register for this course.

GERM320 **Survey of German Studies**

Credits: 3

Grading Method: Regular, Pass-Fail, Audit

Prerequisite: GERM301; or students who have taken courses with comparable content may contact the department.

Approaches to analysis of German cultural products such as literature, film, poetry, architecture and works of art. Taught in German.

0101	Josh Alvizu	Seats (Total: 25)
	TuTh 12:30pm - 1:45pm	JMZ 3203

GERM320H **Survey of German Studies**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Prerequisite: GERM301; or students who have taken courses with comparable content may contact the department.

Approaches to analysis of German cultural products such as literature, film, poetry, architecture and works of art. Taught in German.

0101	Josh Alvizu	Seats (Total: 25)
	TuTh 12:30pm - 1:45pm	JMZ 3203

GERM369A **Special Topics in Study Abroad III; Advanced German I**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Special topics course taken as part of an approved study abroad program.

Contact department for information to register for this course.

GERM369B **Special Topics in Study Abroad III; Advanced German II**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Special topics course taken as part of an approved study abroad program.

Contact department for information to register for this course.

GERM369C **Special Topics in Study Abroad III; German Composition I**

Credits: 1-3 Grading Method: Regular, Pass-Fail, Audit

Special topics course taken as part of an approved study abroad program.

Contact department for information to register for this course.

GERM369D **Special Topics in Study Abroad III; German Composition II**

Credits: 1-3

Grading Method: Regular, Pass-Fail, Audit

Special topics course taken as part of an approved study abroad program.

Contact department for information to register for this course.

GERM369L **Special Topics in Study Abroad III; Contemporary German Literature**

Credits: 1-2

Grading Method: Regular, Pass-Fail, Audit

Special topics course taken as part of an approved study abroad program.

Contact department for information to register for this course.

GERM369P **Special Topics in Study Abroad III; Pop Culture: European-American Trends**

Credits: 3

Grading Method: Regular, Pass-Fail, Audit

Special topics course taken as part of an approved study abroad program.

Contact department for information to register for this course.

GERM386 **Experiential Learning**

(Perm req)

Credits: 3-6

Grading Method: Regular, Pass-Fail

Prerequisite: Permission of ARHU-School of Languages, Literatures, and Cultures department. Restriction: Junior standing or higher.

Contact department for information to register for this course.

GERM389F **Topics in Germanic Culture; Berlin: History, Memory, Literature**

Credits: 3

Grading Method: Regular, Pass-Fail, Audit

Topics in the cultures of the German, Germanic, Indo-European peoples and of their culturally related non-Indo-European neighbors. Taught in English.

Contact department for information to register for this course.

GERM397H **Honors Reading (Independent Study)**

Credits: 3

Grading Method: Regular, Pass-Fail, Audit

Supervised reading to be taken normally only by students admitted into honors program.

Contact department for information to register for this course.

GERM399F **Selected Topics in Germanic Studies; The Human Condition and the Totalitarian Experience**

Credits: 3

Grading Method: Regular, Pass-Fail, Audit

Contact department for information to register for this course.

GERM411 **German for International Business I**

Credits: 3

Grading Method: Regular, Pass-Fail, Audit

Advanced skills in German for international business, including understanding and writing correspondence, reports, graphics, ads, etc., according to current German commercial style.

Contact department for information to register for this course.

GERM439W **Selected Topics in German Literature; Bertolt Brecht**

Credits: 3

Grading Method: Regular, Pass-Fail, Audit

Special study of an author, school, genre, or theme. Taught in German.

This course critically examines the life and works of one of Germany's most prominent playwrights and poets of the 20th century. Taught in German.

0101	Josh Alvizu	Seats (Total: 20)
	TuTh 3:30pm - 4:45pm	JMZ 3205

GERM488C **Capstone Seminar; Encountering the Other: Imagined Orient(s) in German Culture and Thought**

Credits: 3

Grading Method: Regular, Pass-Fail, Audit

Provides an opportunity for German majors (usually in their senior year) to demonstrate that they have achieved the goals for learning established and approved by the department. Students analyze in depth a research topic and apply their accumulated learning. Requirements include engaging in an in-depth research project (research paper or media project) and an in-class presentation of their research to faculty and student peers. Taught in German.

Taught in German.

0101	Julie Koser	Seats (Total: 20)
	TuTh 11:00am - 12:15pm	JMZ 3203

GERM489O **Social Issues in German Culture; Work: German Shorts**

Credits: 3

Grading Method: Regular, Pass-Fail, Audit

Special topics course examining the cultural constructions and representations of important social, political, and linguistic issues, investigating their connection to German values and institutions. Taught in German.

Prerequisite: GERM320 or GERM322 Why do we work? To try and answer this question, we will read a wide range of short works surveying different types of labor and their place in the German imaginary, from the military soldier to the craftsman, the factory worker, the criminal, the bureaucrat, up to the present-day gig economy. Taught in German.

0101	Michael Lipkin	Seats (Total: 20)
	M 4:30pm - 7:15pm	JMZ 3203

GERM498 **Honors Thesis Writing**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Required for students pursuing departmental honors in Germanic languages and literatures. Under the direction of a German department faculty member, students write their honors theses.

Contact department for information to register for this course.

GERM499 **Directed Study**

(Perm req)

Credits: 1-3 Grading Method: Regular, Pass-Fail, Audit

Contact department for information to register for this course.

GERM689O **Special Topics - M.A. Level; Work: German Shorts**

Credits: 3 Grading Method: Regular, Audit, Sat-Fail

M.A.-level study of a literary, linguistic or cultural topic in German or Germanic studies.

Why do we work? To try and answer this question, we will read a wide range of short works surveying different types of labor and their place in the German imaginary, from the military soldier to the craftsman, the factory worker, the criminal, the bureaucrat, up to the present-day gig economy. Taught in German.

0101	Michael Lipkin	Seats (Total: 20)
	M 4:30pm - 7:15pm	JMZ 3203

GERM689W **Special Topics - M.A. Level; Bertolt Brecht**

Credits: 3 Grading Method: Regular, Audit, Sat-Fail

M.A.-level study of a literary, linguistic or cultural topic in German or Germanic studies.

This course critically examines the life and works of one of Germany's most prominent playwrights and poets of the 20th century. Taught in German.

0101	Josh Alvizu	Seats (Total: 20)
	TuTh 3:30pm - 4:45pm	JMZ 3205

GERM798 **Master's Independent Study**

Credits: 1-3 Grading Method: Regular, Audit, Sat-Fail

Contact department for information to register for this course.

GERM799 **Master's Thesis Research**

Credits: 1-6 Grading Method: Sat-Fail

Contact department for information to register for this course.

GERM888 **Doctoral Independent Study**

(Perm req)

Credits: 1-3 Grading Method: Regular, Audit, Sat-Fail

Contact department for information to register for this course.

GERM898 **Pre-Candidacy Research**

Credits: 1-8 Grading Method: Regular, Sat-Fail

Contact department for information to register for this course.

GERM899 **Doctoral Dissertation Research**

(Perm req)

Credits: 6 Grading Method: Sat-Fail

Contact department for information to register for this course.

GREK Greek Spring 2020

GREK102 **Elementary Ancient Greek II**

Credits: 4 Grading Method: Regular, Pass-Fail, Audit

Prerequisite: GREK101; or students who have taken courses with comparable content may contact the department.

Continuing development of basic grammar and reading skills; study and discussion of central aspects of Greek culture.

0101	Gregory Bucher	Seats (Total: 15)
	MWF 10:00am - 10:50am	JMZ 1103
	M 9:00am - 9:50am	JMZ 1103

GREK112 **Elementary Modern Greek II**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Prerequisite: GREK111; or permission of instructor. Credit only granted for: FOLA109G or GREK112. Formerly: FOLA109G.

It is designed for students who have already completed the first semester course (GREK111) and/or those whose level of proficiency in Greek is not advanced enough for the intermediate level. Like GREK111, an introduction is provided to the language and culture of modern Greece. Students acquire the basic tools of the language and learn to communicate in simple, everyday situations. This is the second of our two-semester sequence in Elementary Modern Greek and contributes to the fulfillment of the Global Engagement requirement of the College of Arts and Humanities.

0101	Polyvia Parara	Seats (Total: 15)
	MWF 12:00pm - 12:50pm	MMH 1218

GREK212 **Intermediate Modern Greek II**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Prerequisite: GREK211; or permission of instructor. Credit only granted for: FOLA119G or GREK212. Formerly: FOLA119G.

A continuation in the development of fluency in spoken and written communication along with the exploration of syntactic and grammatical structures. Comprehension and vocabulary enrichment are further developed through selected readings from Modern Greek prose and poetry. This is the second of our two-semester sequence in Intermediate Modern Greek and contributes to the fulfillment of the Global Engagement requirement of the College of Arts and Humanities.

0101	Polyvia Parara	Seats (Total: 10)
	MWF 11:00am - 11:50am	MMH 1218

GREK388 **Intermediate Ancient Greek Readings; Biblical Greek**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

The reading of one or more selected Greek authors from the archaic period through late antiquity. Appropriate for those at an intermediate level in the study of ancient Greek.

0101	Robert Matera	Seats (Total: 7)
	TuTh 3:30pm - 4:45pm	MMH 1218

GREK399A **Topics in Advanced Modern Greek Language and Culture**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Development of communicative skills in advanced Modern Greek. Topics will be drawn from the social and folk life of modern Greece.

0101	Polyvia Parara	Seats (Total: 10)
	MWF 10:00am - 10:50am	MMH 1218

GREK399B **Topics in Advanced Modern Greek Language and Culture; Ancient Greeks and Modern Greek Identity**

(Perm req)

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Development of communicative skills in advanced Modern Greek. Topics will be drawn from the social and folk life of modern Greece.

Prerequisite: GREK212 or equivalent; or permission of department. Readings are in modern Greek.

0101	Polyvia Parara	Seats (Total: 7)
	M 5:00pm - 7:30pm	MMH 1304

GREK472 **History and Development of the Greek Language**

(Perm req)

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Restriction: Permission of instructor.

Mastery of ancient Greek through grammar review, prose composition, and analysis of historical developments in Greek writers' modes of expression.

0101	Jorge Bravo	Seats (Total: 5)
	W 5:00pm - 7:40pm	MMH 1218

GREK499 **Independent Study in Greek Language and Literature**

(Perm req)

Credits: 1-3

Grading Method: Regular, Pass-Fail, Audit

Contact department for information to register for this course.

GREK672 **History and Development of the Greek Language**

(Perm req)

Credits: 3

Grading Method: Regular, Audit, Sat-Fail

Restriction: Permission of instructor.

Mastery of ancient Greek through grammar review, prose composition, and analysis of historical developments in Greek writers' modes of expression.

0101	Jorge Bravo	Seats (Total: 10)
	W 5:00pm - 7:40pm	MMH 1218

GREK699 **Independent Study in Greek Literature**

(Perm req)

Credits: 1-3

Grading Method: Regular, Audit, Sat-Fail

Contact department for information to register for this course.

GREK799 **Master's Thesis Research**

(Perm req)

Credits: 1-6

Grading Method: Sat-Fail

Contact department for information to register for this course.

GVPT Government and Politics Spring 2020

GVPT158A **Special Topics in Study Abroad I; The European Union**

Credits: 1-6

Grading Method: Regular, Pass-Fail, Audit

Special topics course taken as part of an approved study abroad program.

Contact department for information to register for this course.

GVPT170 **American Government**

Credits: 3

Grading Method: Regular, Pass-Fail, Audit

CORE: SB

General Education: DSHS

A comprehensive study of national government in the United States.

0101	Patrick Wohlfarth MW 10:00am - 10:50am F 9:00am - 9:50am	Seats (Total: 25) ARC 0204 TYD 0101	Discussion
0102	Patrick Wohlfarth MW 10:00am - 10:50am F 10:00am - 10:50am	Seats (Total: 25) ARC 0204 TYD 0102	Discussion
0103	Patrick Wohlfarth MW 10:00am - 10:50am F 1:00pm - 1:50pm	Seats (Total: 25) ARC 0204 TYD 0101	Discussion
0104	Patrick Wohlfarth MW 10:00am - 10:50am F 9:00am - 9:50am	Seats (Total: 25) ARC 0204 TYD 1102	Discussion
0105	Patrick Wohlfarth MW 10:00am - 10:50am F 10:00am - 10:50am	Seats (Total: 25) ARC 0204 TYD 1102	Discussion
0106	Patrick Wohlfarth MW 10:00am - 10:50am F 1:00pm - 1:50pm	Seats (Total: 25) ARC 0204 TYD 1102	Discussion
0107	Patrick Wohlfarth MW 10:00am - 10:50am F 10:00am - 10:50am	Seats (Total: 25) ARC 0204 TYD 1108	Discussion
0108	Patrick Wohlfarth MW 10:00am - 10:50am F 1:00pm - 1:50pm	Seats (Total: 25) ARC 0204 TYD 2109	Discussion
0109	Patrick Wohlfarth MW 10:00am - 10:50am F 2:00pm - 2:50pm	Seats (Total: 25) ARC 0204 TYD 2102	Discussion

GVPT200 **International Political Relations**

Credits: 3	Grading Method: Regular, Pass-Fail, Audit	CORE: SB	General Education: DSHS, DVUP

A study of the major factors underlying international relations, the causes of conflict and cooperation among international actors, the role of international institutions, the interactions of domestic and foreign policies, and major issues in security, economy and the environment.

0101	Todd Allee MW 10:00am - 10:50am F 9:00am - 9:50am	Seats (Total: 25) TYD 0130 TYD 1118	Discussion
0102	Todd Allee MW 10:00am - 10:50am F 10:00am - 10:50am	Seats (Total: 25) TYD 0130 TYD 2109	Discussion
0103	Todd Allee MW 10:00am - 10:50am F 1:00pm - 1:50pm	Seats (Total: 25) TYD 0130 JMZ 1224	Discussion
0104	Todd Allee MW 10:00am - 10:50am F 9:00am - 9:50am	Seats (Total: 25) TYD 0130 TYD 1101	Discussion
0105	Todd Allee MW 10:00am - 10:50am F 10:00am - 10:50am	Seats (Total: 25) TYD 0130 TYD 0117	Discussion
0106	Todd Allee MW 10:00am - 10:50am F 1:00pm - 1:50pm	Seats (Total: 25) TYD 0130 SKN 0104	Discussion
0107	Todd Allee MW 10:00am - 10:50am F 9:00am - 9:50am	Seats (Total: 25) TYD 0130 TYD 0102	Discussion
0108	Todd Allee MW 10:00am - 10:50am F 11:00am - 11:50am	Seats (Total: 25) TYD 0130 TYD 1101	Discussion
0109	Todd Allee MW 10:00am - 10:50am F 1:00pm - 1:50pm	Seats (Total: 25) TYD 0130 LEF 2166	Discussion

GVPT201 Scope and Methods for Political Science Research

Credits: 3 | Grading Method: Regular, Pass-Fail, Audit | General Education: DSSP

Credit only granted for: GVPT100 or GVPT201. Formerly: GVPT100.

An introduction to empirical research in political science.

0101	Johanna Birnir MW 9:00am - 9:50am F 9:00am - 9:50am	Seats (Total: 25) TYD 2109 TYD 1108	Discussion
0102	Johanna Birnir MW 9:00am - 9:50am F 10:00am - 10:50am	Seats (Total: 25) TYD 2109 TYD 1101	Discussion
0103	Johanna Birnir MW 9:00am - 9:50am F 1:00pm - 1:50pm	Seats (Total: 25) TYD 2109 TYD 0102	Discussion
0201	Johanna Birnir MW 10:00am - 10:50am F 9:00am - 9:50am	Seats (Total: 25) SHM 2102 TYD 0111	Discussion
0202	Johanna Birnir MW 10:00am - 10:50am F 10:00am - 10:50am	Seats (Total: 25) SHM 2102 TYD 0111	Discussion
0203	Johanna Birnir MW 10:00am - 10:50am F 1:00pm - 1:50pm	Seats (Total: 25) SHM 2102 TYD 1101	Discussion
0204	Johanna Birnir MW 10:00am - 10:50am F 10:00am - 10:50am	Seats (Total: 25) SHM 2102 KEY 0103	Discussion
0205	Johanna Birnir MW 10:00am - 10:50am F 1:00pm - 1:50pm	Seats (Total: 25) SHM 2102 TYD 1108	Discussion
0206	Johanna Birnir MW 10:00am - 10:50am F 2:00pm - 2:50pm	Seats (Total: 25) SHM 2102 TYD 1108	Discussion

GVPT203 **The Challenge of Authoritarianism**

Credits: 3 | Grading Method: Regular, Pass-Fail, Audit | General Education: DSHS, SCIS

An introduction to the persistent challenge of authoritarianism. The course explores the nature of authoritarianism and its evolution from ancient through modern times. Students will study how authoritarian regimes vary, why citizens sometimes comply with them, and when and how citizens rebel. The course concludes with a review of contemporary authoritarianism, focusing on its resilience in the Middle East and East Asia and its potential for a resurgence in the US and Europe.

0101	Calvert Jones MW 10:00am - 10:50am F 9:00am - 9:50am	Seats (Total: 20) BPS 1250 KEY 0119	Discussion
0102	Calvert Jones MW 10:00am - 10:50am F 10:00am - 10:50am	Seats (Total: 20) BPS 1250 KEY 0119	Discussion
0103	Calvert Jones MW 10:00am - 10:50am F 1:00pm - 1:50pm	Seats (Total: 20) BPS 1250 KEY 1117	Discussion
0104	Calvert Jones MW 10:00am - 10:50am F 9:00am - 9:50am	Seats (Total: 20) BPS 1250 JMZ 1215	Discussion
0105	Calvert Jones MW 10:00am - 10:50am F 10:00am - 10:50am	Seats (Total: 20) BPS 1250 JMZ 1215	Discussion
0106	Calvert Jones MW 10:00am - 10:50am F 1:00pm - 1:50pm	Seats (Total: 20) BPS 1250 TYD 2106	Discussion

GVPT241 **The Study of Political Philosophy: Ancient and Modern**

Credits: 3 | Grading Method: Regular, Pass-Fail, Audit | General Education: DSSP

Examines some of the salient continuities and breaks between the ancient and modern traditions in Western political philosophy.

0101	Sujith Kumar TuTh 2:00pm - 2:50pm F 9:00am - 9:50am	Seats (Total: 25) LEF 2205 TYD 2102	Discussion
0102	Sujith Kumar TuTh 2:00pm - 2:50pm F 10:00am - 10:50am	Seats (Total: 25) LEF 2205 TYD 2102	Discussion
0103	Sujith Kumar TuTh 2:00pm - 2:50pm F 9:00am - 9:50am	Seats (Total: 25) LEF 2205 TYD 2109	Discussion
0104	Sujith Kumar TuTh 2:00pm - 2:50pm F 10:00am - 10:50am	Seats (Total: 25) LEF 2205 TYD 2108	Discussion
0105	Sujith Kumar TuTh 2:00pm - 2:50pm F 11:00am - 11:50am	Seats (Total: 25) LEF 2205 TYD 0111	Discussion
0106	Sujith Kumar TuTh 2:00pm - 2:50pm F 1:00pm - 1:50pm	Seats (Total: 25) LEF 2205 TYD 2102	Discussion
0107	Sujith Kumar TuTh 2:00pm - 2:50pm F 1:00pm - 1:50pm	Seats (Total: 25) LEF 2205 TYD 1132	Discussion
0108	Sujith Kumar TuTh 2:00pm - 2:50pm F 2:00pm - 2:50pm	Seats (Total: 25) LEF 2205 TYD 2106	Discussion

GVPT258B **Introduction to Political Science Topics in Study Abroad; Enemy Within: Spies and Espionage in the Cold War**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

The study of topics in political science taken as part of an approve study abroad program.

Contact department for information to register for this course.

GVPT258C **Introduction to Political Science Topics in Study Abroad; Government and Politics in China**

Credits: 3

Grading Method: Regular, Pass-Fail, Audit

The study of topics in political science taken as part of an approve study abroad program.

Contact department for information to register for this course.

GVPT258D **Introduction to Political Science Topics in Study Abroad; Danish Politics and Society**

Credits: 3

Grading Method: Regular, Pass-Fail, Audit

The study of topics in political science taken as part of an approve study abroad program.

Contact department for information to register for this course.

GVPT258J **Introduction to Political Science Topics in Study Abroad; Comparative Foreign Policy-Haifa**

Credits: 3

Grading Method: Regular, Pass-Fail, Audit

The study of topics in political science taken as part of an approve study abroad program.

Contact department for information to register for this course.

GVPT258N **Introduction to Political Science Topics in Study Abroad; Arms Control in the Nuclear Realm**

Credits: 3

Grading Method: Regular, Pass-Fail, Audit

The study of topics in political science taken as part of an approve study abroad program.

Contact department for information to register for this course.

GVPT258P **Introduction to Political Science Topics in Study Abroad; Sustainable Development: Environmental, Political and Social Issues**

Credits: 3

Grading Method: Regular, Pass-Fail, Audit

The study of topics in political science taken as part of an approve study abroad program.

Contact department for information to register for this course.

GVPT258Q **Introduction to Political Science Topics in Study Abroad; Latin American Social Revolutions**

Credits: 3

Grading Method: Regular, Pass-Fail, Audit

The study of topics in political science taken as part of an approve study abroad program.

Contact department for information to register for this course.

GVPT258R **Introduction to Political Science Topics in Study Abroad; Peace and Conflict Honors Seminar II: Regional Conflicts**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

The study of topics in political science taken as part of an approve study abroad program.

Contact department for information to register for this course.

GVPT258T **Introduction to Political Science Topics in Study Abroad**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

The study of topics in political science taken as part of an approve study abroad program.

Contact department for information to register for this course.

GVPT273 **Introduction to Environmental Politics**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit General Education: DSSP

An overview of modern environmental philosophy, politics, and policy, exploring environmental politics in the US by way of comparison with other developed and developing countries.

0101	Jennifer Wallace TuTh 12:30pm - 1:20pm F 9:00am - 9:50am	Seats (Total: 25) TYD 2109 TYD 2111	Discussion
0102	Jennifer Wallace TuTh 12:30pm - 1:20pm F 10:00am - 10:50am	Seats (Total: 25) TYD 2109 TYD 2106	Discussion
0103	Jennifer Wallace TuTh 12:30pm - 1:20pm Th 2:00pm - 2:50pm	Seats (Total: 25) TYD 2109 TYD 1101	Discussion

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GVPT282 **Politics and the Developing World**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit General Education: DSHS, DVUP

A study of the domestic governmental institutions; processes and problems such as conflict and economic development; and the socio-economic environments that are common to developing countries of Africa, the Middle East, Asia, and Latin America.

0101	Jennifer Wallace MW 1:00pm - 1:50pm F 11:00am - 11:50am	Seats (Total: 25) HJP 0226 TYD 1114	Discussion
0102	Jennifer Wallace MW 1:00pm - 1:50pm F 12:00pm - 12:50pm	Seats (Total: 25) HJP 0226 TYD 1114	Discussion
0103	Jennifer Wallace MW 1:00pm - 1:50pm F 2:00pm - 2:50pm	Seats (Total: 25) HJP 0226 TYD 1101	Discussion
0104	Jennifer Wallace MW 1:00pm - 1:50pm F 10:00am - 10:50am	Seats (Total: 25) HJP 0226 KEY 1117	Discussion
0105	Jennifer Wallace MW 1:00pm - 1:50pm F 11:00am - 11:50am	Seats (Total: 25) HJP 0226 KEY 1117	Discussion
0106	Jennifer Wallace MW 1:00pm - 1:50pm F 1:00pm - 1:50pm	Seats (Total: 25) HJP 0226 JMZ 0205	Discussion

GVPT289A **Appetite for Change: Politics and the Globalization of Food**

Credits: 3 | Grading Method: Regular, Pass-Fail, Audit | General Education: DSHS, SCIS

Credit only granted for: GVPT206 or GVPT289A. Formerly: GVPT289A.

An overview of the major forces transforming the food system--political, economic, technological, environmental--and the political debates surrounding them.

An overview of the major forces transforming the food system--political, economic, technological, environmental--and the political debates surrounding them.

0101	Virginia Haufler MW 2:00pm - 2:50pm F 9:00am - 9:50am	Seats (Total: 20) SHM 2102 EDU 2119	Discussion

0102	Virginia Haufler MW 2:00pm - 2:50pm F 10:00am - 10:50am	Seats (Total: 20) SHM 2102 EDU 2119	Discussion
0103	Virginia Haufler MW 2:00pm - 2:50pm F 1:00pm - 1:50pm	Seats (Total: 20) SHM 2102 EDU 3233	Discussion
0104	Virginia Haufler MW 2:00pm - 2:50pm F 9:00am - 9:50am	Seats (Total: 20) SHM 2102 TWS 1107	Discussion
0105	Virginia Haufler MW 2:00pm - 2:50pm F 10:00am - 10:50am	Seats (Total: 20) SHM 2102 TWS 1107	Discussion
0106	Virginia Haufler MW 2:00pm - 2:50pm F 1:00pm - 1:50pm	Seats (Total: 20) SHM 2102 TWS 1320	Discussion

GVPT289B **Special Topics in Government and Politics; Globalization**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Substantive issues of and theoretical approaches to political phenomenon. Topics and credit vary.

Contact department for information to register for this course.

GVPT289E **Special Topics in Government and Politics; Economy and Society**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Substantive issues of and theoretical approaches to political phenomenon. Topics and credit vary.

Contact department for information to register for this course.

GVPT289G **Special Topics in Government and Politics; Global Perspectives on Development**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Substantive issues of and theoretical approaches to political phenomenon. Topics and credit vary.

Contact department for information to register for this course.

GVPT289P **Special Topics in Government and Politics; Citizenship and Ethics**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Substantive issues of and theoretical approaches to political phenomenon. Topics and credit vary.

Contact department for information to register for this course.

GVPT289T **Special Topics in Government and Politics; Issues and Controversies in 21st Century**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Substantive issues of and theoretical approaches to political phenomenon. Topics and credit vary.

Contact department for information to register for this course.

GVPT289X **Special Topics in Government and Politics; Introduction to the European Union**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Substantive issues of and theoretical approaches to political phenomenon. Topics and credit vary.

Contact department for information to register for this course.

GVPT289Y **Special Topics in Government and Politics; Theories of Peace and Conflict**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Substantive issues of and theoretical approaches to political phenomenon. Topics and credit vary.

Contact department for information to register for this course.

GVPT306 **Global Environmental Politics**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Prerequisite: GVPT200. Restriction: Must be in one of the following programs (Government & Politics; Government & Politics: International Relations) ; or permission of BSOS-Government & Politics department.

Focus on three processes of international environmental policy development- identifying problems, negotiating solutions, and implementing agreements- through a range of case studies, including global climate change.

Restriction: Must be in Government & Politics program; or must be in Government & Politics: International Relations program.

0101	Jennifer Wallace	Seats (Total: 30)
	TuTh 3:30pm - 4:45pm	TYD 0102

GVPT309H **Topics in International Relations; British Politics**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

The study of topics in international relations.

Contact department for information to register for this course.

GVPT309I **Topics in International Relations; Socio-Economic, Political, Religious, and Ethnic Conflicts in Israel, and the Search for Common Ground**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

The study of topics in international relations.

Contact department for information to register for this course.

GVPT317 **Mock Trial II: Advanced Trial Advocacy**

(Perm req)

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Prerequisite: GVPT217. Credit only granted for: GVPT317 or GVPT319B. Formerly: GVPT319B.

Development of trial advocacy skills through participation in practice trials and intercollegiate mock trial competitions. Student may have an opportunity to represent the university in intercollegiate mock trial tournaments, including the National Mock Trial Championships.

0101	William Mundy	Seats (Total: 40)
	W 6:30pm - 9:15pm	TYD 2108

GVPT331 **Courts, Law and Justice**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Prerequisite: GVPT170.

An introductory course to the study of law with emphasis on how lawyers and judges think and argue. Topics include, contract law, property, family law, torts, and criminal procedure.

Cross-listed with MLAW358W. Credit only granted for GVPT331 or MLAW358W.

0101	Michael Spivey MW 1:00pm - 1:50pm F 9:00am - 9:50am	Seats (Total: 25) JMZ 0220 KEY 0121	Discussion
0102	Michael Spivey MW 1:00pm - 1:50pm F 10:00am - 10:50am	Seats (Total: 25) JMZ 0220 KEY 0121	Discussion
0103	Michael Spivey MW 1:00pm - 1:50pm F 1:00pm - 1:50pm	Seats (Total: 25) JMZ 0220 HBK 1108	Discussion
0104	Michael Spivey MW 1:00pm - 1:50pm F 10:00am - 10:50am	Seats (Total: 25) JMZ 0220 ASY 3215	Discussion
0105	Michael Spivey MW 1:00pm - 1:50pm F 1:00pm - 1:50pm	Seats (Total: 25) JMZ 0220 TYD 2108	Discussion
0106	Michael Spivey MW 1:00pm - 1:50pm F 2:00pm - 2:50pm	Seats (Total: 25) JMZ 0220 TYD 2110	Discussion

GVPT349 **Topics in Political Philosophy**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

The study of topics in political philosophy.

Contact department for information to register for this course.

GVPT349Z **Topics in Political Philosophy; Political Thought**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

The study of topics in political philosophy.

Contact department for information to register for this course.

GVPT355 **Capstone in International Conflict Management**

(Perm req)

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Prerequisite: GVPT354. Restriction: Enrollment is restricted to students in the Minor in International Development and Conflict Management; and sophomore standing or higher; and permission of BSOS-Government & Politics department.

Serves as one of the two capstone courses for the Minor in International Development and Conflict Management. Focuses on advanced theory and the practice and profession of international conflict management and is designed to provide students an introduction to, and a chance to engage with, a core set of practical skills relevant to the field.

0101	Leonard Hawley, Michael Hess, James Covey W 3:30pm - 6:15pm	Seats (Total: 40) TWS 1310

GVPT356 **Capstone in International Development**

(Perm req)

Credits: 3 | Grading Method: Regular, Pass-Fail, Audit | General Education: DSSP, DVCC

Prerequisite: GVPT354. Restriction: Enrollment is restricted to students in the Minor in International Development and Conflict Management; and sophomore standing or higher; and permission of BSOS-Government & Politics department.

Serves as one of the two capstone courses for the Minor in International Development and Conflict Management. Focuses on advanced theory and the practice and profession of international development and is designed to provide students an introduction to, and a chance to engage with, a core set of practical skills relevant to the field.

A Fearless Ideas Course from the Academy for Innovation & Entrepreneurship (AIE): http://ter.ps/iamFEARLESS Click here for more information on the Fearless Ideas Courses.

0101	Stacy Kosko M 2:00pm - 4:45pm	Seats (Total: 42) ESJ 1309
0201	Stacy Kosko Tu 9:00am - 11:45am *This is a Global Classroom course.*	Seats (Total: 25) HJP 3120

GVPT358A **Study Abroad Seminar in Political Science; Migration and Multiculturalism in Europe**

Credits: 3 | Grading Method: Regular, Pass-Fail, Audit

The study of topics in political science.

Contact department for information to register for this course.

GVPT358F **Study Abroad Seminar in Political Science; Government and Politics in France**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

The study of topics in political science.

Contact department for information to register for this course.

GVPT358G **Study Abroad Seminar in Political Science; History and Politics of Modern Italy: The Twentieth Century**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

The study of topics in political science.

Contact department for information to register for this course.

GVPT358N **Study Abroad Seminar in Political Science; Spain in the 21st Century: Nationalism, Populism & Social Movements**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

The study of topics in political science.

Contact department for information to register for this course.

GVPT358O **Study Abroad Seminar in Political Science; Comparative Politics and Government**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

The study of topics in political science.

Contact department for information to register for this course.

GVPT358P **Study Abroad Seminar in Political Science; Political Rhetoric: Blogs, Speeches, and Spin**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

The study of topics in political science.

Contact department for information to register for this course.

GVPT358R **Study Abroad Seminar in Political Science; Religion and Politics in Europe**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

The study of topics in political science.

Contact department for information to register for this course.

GVPT359 **Topics in Comparative Politics**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

The study of topics in comparative politics.

Contact department for information to register for this course.

GVPT359F **Topics in Comparative Politics; Issues in African Development**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

The study of topics in comparative politics.

Cross-listed with AASP398D, GEOG398A, and SOCY398Y. Credit only granted for AASP398D, GEOG398A, GVPT359F, or SOCY398Y.

0101	Sangeetha Madhavan W 2:00pm - 4:30pm	Seats (Total: 20) KEY 0124

GVPT359Z **Topics in Comparative Politics; Parliament, Politics and Policy Making**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

The study of topics in comparative politics.

Contact department for information to register for this course.

GVPT368N **Special Topics in Government and Politics; American Jewry and Public Policy**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

The study of topics in government and politics.

Jointly offered with JWST429M. Credit only granted for JWST429M or GVPT3 68N. An examination of the contours of American Jewry and its engagement in public policy. Focus will be on historical development, Jewish political thought, organizational and representation structures. Ar eas of specific concern include Israel and foreign policy, as well as domestic topics, including electoral politics. A number of in-depth casestudies will be examined.

0101	Scott Lasensky Tu 4:00pm - 6:30pm	Seats (Total: 40) SQH 1103

GVPT373 **Geographic Information Systems for Redistricting**

Credits: 3

Grading Method: Regular, Pass-Fail, Audit

Prerequisite: GVPT392. Recommended: Recommended: at least one course in statistics.

Local, state and federal governments must periodically draw and redraw political boundaries to account for shifts in the population. This course will be an introduction and overview of district drawing and redistricting as an important application of GIS research in political science and public policy. This class will equip students to use convenient GIS tools to create and consider alternative district scenarios to find the best possible solution. After finishing this class students will be able to draw districts to define police beats, sales territories, congressional and state legislative districts, school and fire protection districts, and numerous other boundaries.

Students must pay a $50.00 materials fee. Students are required to bring a laptop to every class meeting. Students will need to download software onto their laptops and must have at least 60GB free space available (hard drive or a USB 3.0 external hard or flash drive) for proper installation and use. Questions regarding laptop specifications should be directed to the course instructor.

0101	James Gimpel	Seats (Total: 30)
	TuTh 9:30am - 10:45am	TYD 1102

GVPT386 **Experiential Learning**

(Perm req)

Credits: 3-6

Grading Method: Regular, Pass-Fail

Restriction: Permission of BSOS-Government & Politics department; and junior standing or higher.

Contact department for information to register for this course.

GVPT388 **Topical Investigations**

(Perm req)

Credits: 1-3

Grading Method: Regular, Pass-Fail, Audit

Independent research and writing on selected topics in government and politics.

Permission of Director of Undergraduate Studies required.

Contact department for information to register for this course.

GVPT388B **Topical Investigations; Innovation in the Public Sector**

Credits: 3

Grading Method: Regular, Pass-Fail, Audit

Independent research and writing on selected topics in government and politics.

Prerequisite: PSYC100, GVPT100 or ECON200. Cross-listed with GVPT388B. Credit will be granted for BSOS388f or GVPT 388B. Restricted to GVPT majors.

0101	Katie Gerbes, Kenneth Ulman W 4:00pm - 6:30pm	Seats (Total: 20) CHT 2113

GVPT388M **Topical Investigations; Mock Trial Independent Study**

(Perm req)

Credits: 1 Grading Method: Regular, Pass-Fail

Independent research and writing on selected topics in government and politics.

Prerequisite: Permission of department.

0101	William Mundy W 6:30pm - 9:15pm	Seats (Total: 15) TYD 2110

GVPT388O **Topical Investigations; Race Relations in the US and France**

Credits: 1 Grading Method: Regular, Pass-Fail, Audit

Independent research and writing on selected topics in government and politics.

Contact department for information to register for this course.

GVPT388R **Topical Investigations; Race Relations in the US and France**

(Perm req)

Credits: 2 Grading Method: Regular, Pass-Fail, Audit

Independent research and writing on selected topics in government and politics.

This is a new course that combines lectures on campus in College Park with a study abroad component in Paris, France from March 13-22, 2020. The on-campus lectures will focus on racial and ethnic politics in the US and France. The goal of the course is to contrast the experiences of racial and ethnic minorities in the US with those in France. It is designed to explore how racial and ethnic groups shape and are shaped by the American and French political systems. Among the topics to be covered include the meaning and measurement of race and ethnicity, immigration politics, prejudice, and political representation. The estimated cost associated with the travel and stay in Paris is between $2500 to $3000 (does not include airfare). Financial aid and/or need-based scholarships may be available. For permission to register or more course information, contact the instructor at abanks12@umd.edu. Students must complete both GVPT388R and the spring break study abroad course in order to earn GVPT major credit.

0101	Antoine Banks Tu 11:00am - 12:40pm Class time/details on ELMs	Seats (Total: 20) KEY 0119 ONLINE	 Discussion

GVPT388W **Topical Investigations; Experiential Learning: Maryland, Public Policy and Beyond**

(Perm req)

Credits: 3

Grading Method: Regular, Pass-Fail, Audit

Independent research and writing on selected topics in government and politics.

Students interested in registering for this course must have an internship secured and must apply to the GVPT Internship Program; the application is available at the link below. Required in-person class meetings will take place 6:30pm - 9:15pm on the following Tuesdays: January 28th, March 10th, and April 28th.

0101	SoRelle Gaynor Class time/details on ELMs Tu 6:30pm - 9:15pm	Seats (Total: 40) ONLINE Location: TBA

GVPT389 **Experiential Learning II**

(Perm req)

Credits: 3-6

Grading Method: Regular, Pass-Fail, Audit

Experiential credit for working in government & politics related internships, research, and teaching opportunities.

Junior standing.

Contact department for information to register for this course.

GVPT390 **Game Theory**

Credits: 3

Grading Method: Regular, Pass-Fail, Audit

Restriction: Must not have completed ECON414. Credit only granted for: GVPT399A, GVPT390, CMSC474 or ECON414. Formerly: GVPT399A.

Introduction to game theory with applications to political science, economics and sociology. Topics include preference theory, expected utility theory, Nash equilibria, subgame perfection, repeated games, folk theorems, and evolutionary stability.

0101	Piotr Swistak Tu 2:00pm - 4:45pm	Seats (Total: 30) TYD 1101

GVPT396 **Introduction to Honors Research**

(Perm req)

Credits: 3

Grading Method: Regular, Pass-Fail

Restriction: Must be in Government & Politics Honors Program; and must have permission of the Government & Politics Honors Program.

A required course for all honors students designed to emphasize library research, methodology, and writing skills in political science and political philosophy. A written proposal, bibliography and research design for an honors paper required of all students as a final project.

Contact department for information to register for this course.

GVPT397 **Honors Research**

(Perm req)

Credits: 3 Grading Method: Regular, Pass-Fail

Prerequisite: GVPT396. Restriction: Must be in Government & Politics Honors Program.

Individual reading and research. Preparation of an original paper.

Contact department for information to register for this course.

GVPT399 **Seminar in Government and Politics**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Reading, research, discussion, analysis, and writing in the area of politics. Both substantive issues and methodological approaches will be considered. Primarily for government and politics undergraduate majors.

Contact department for information to register for this course.

GVPT399C **Seminar in Government and Politics; Cultures Without State: The Case of Catalonia**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Reading, research, discussion, analysis, and writing in the area of politics. Both substantive issues and methodological approaches will be considered. Primarily for government and politics undergraduate majors.

Contact department for information to register for this course.

GVPT399D **Seminar in Government and Politics; Society and Politics in Contemporary Spain**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Reading, research, discussion, analysis, and writing in the area of politics. Both substantive issues and methodological approaches will be considered. Primarily for government and politics undergraduate majors.

Contact department for information to register for this course.

GVPT399E **Seminar in Government and Politics; The European Union: Politics and Policy**

Credits: 3

Grading Method: Regular, Pass-Fail, Audit

Reading, research, discussion, analysis, and writing in the area of politics. Both substantive issues and methodological approaches will be considered. Primarily for government and politics undergraduate majors.

Contact department for information to register for this course.

GVPT399I **Seminar in Government and Politics; Globilization**

Credits: 3

Grading Method: Regular, Pass-Fail, Audit

Reading, research, discussion, analysis, and writing in the area of politics. Both substantive issues and methodological approaches will be considered. Primarily for government and politics undergraduate majors.

Contact department for information to register for this course.

GVPT399J **Seminar in Government and Politics; Modern British Politics**

Credits: 3

Grading Method: Regular, Pass-Fail, Audit

Reading, research, discussion, analysis, and writing in the area of politics. Both substantive issues and methodological approaches will be considered. Primarily for government and politics undergraduate majors.

Contact department for information to register for this course.

GVPT399K **Seminar in Government and Politics; Structure and Process in International Relations**

Credits: 3

Grading Method: Regular, Pass-Fail, Audit

Reading, research, discussion, analysis, and writing in the area of politics. Both substantive issues and methodological approaches will be considered. Primarily for government and politics undergraduate majors.

Contact department for information to register for this course.

GVPT399L **Seminar in Government and Politics; British Politics**

Credits: 3

Grading Method: Regular, Pass-Fail, Audit

Reading, research, discussion, analysis, and writing in the area of politics. Both substantive issues and methodological approaches will be considered. Primarily for government and politics undergraduate majors.

Contact department for information to register for this course.

GVPT399M **Seminar in Government and Politics; Policy Analysis**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Reading, research, discussion, analysis, and writing in the area of politics. Both substantive issues and methodological approaches will be considered. Primarily for government and politics undergraduate majors.

Contact department for information to register for this course.

GVPT399O **Seminar in Government and Politics; Parliament Politics**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Reading, research, discussion, analysis, and writing in the area of politics. Both substantive issues and methodological approaches will be considered. Primarily for government and politics undergraduate majors.

Contact department for information to register for this course.

GVPT399P **Seminar in Government and Politics; Foreign Policy Analysis**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Reading, research, discussion, analysis, and writing in the area of politics. Both substantive issues and methodological approaches will be considered. Primarily for government and politics undergraduate majors.

Contact department for information to register for this course.

GVPT399Q **Seminar in Government and Politics; Security and Defense Policy in the European Union**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Reading, research, discussion, analysis, and writing in the area of politics. Both substantive issues and methodological approaches will be considered. Primarily for government and politics undergraduate majors.

Contact department for information to register for this course.

GVPT399R **Seminar in Government and Politics; Modern American Government**

Credits: 3

Grading Method: Regular, Pass-Fail, Audit

Reading, research, discussion, analysis, and writing in the area of politics. Both substantive issues and methodological approaches will be considered. Primarily for government and politics undergraduate majors.

Contact department for information to register for this course.

GVPT399T **Seminar in Government and Politics; Social Policy, Social Exclusion**

Credits: 3

Grading Method: Regular, Pass-Fail, Audit

Reading, research, discussion, analysis, and writing in the area of politics. Both substantive issues and methodological approaches will be considered. Primarily for government and politics undergraduate majors.

Contact department for information to register for this course.

GVPT399V **Seminar in Government and Politics; Political Economy of China and Japan**

Credits: 3

Grading Method: Regular, Pass-Fail, Audit

Reading, research, discussion, analysis, and writing in the area of politics. Both substantive issues and methodological approaches will be considered. Primarily for government and politics undergraduate majors.

Contact department for information to register for this course.

GVPT399W **Seminar in Government and Politics; International Economic Organizations**

Credits: 3

Grading Method: Regular, Pass-Fail, Audit

Reading, research, discussion, analysis, and writing in the area of politics. Both substantive issues and methodological approaches will be considered. Primarily for government and politics undergraduate majors.

Contact department for information to register for this course.

GVPT399X **Seminar in Government and Politics; Politics of the Balkan**

Credits: 3

Grading Method: Regular, Pass-Fail, Audit

Reading, research, discussion, analysis, and writing in the area of politics. Both substantive issues and methodological approaches will be considered. Primarily for government and politics undergraduate majors.

Contact department for information to register for this course.

GVPT399Y **Seminar in Government and Politics; Political Economy of Sustainable Development**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Reading, research, discussion, analysis, and writing in the area of politics. Both substantive issues and methodological approaches will be considered. Primarily for government and politics undergraduate majors.

Contact department for information to register for this course.

GVPT399Z **Seminar in Government and Politics; International Security**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Reading, research, discussion, analysis, and writing in the area of politics. Both substantive issues and methodological approaches will be considered. Primarily for government and politics undergraduate majors.

Contact department for information to register for this course.

GVPT402 **International Law**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Prerequisite: GVPT200. Restriction: Must be in Government & Politics program; and junior standing or higher.

A study of the basic character, general principles and specific rules of international law, with emphasis on recent and contemporary trends in the field and its relation to other aspects of international affairs.

Contact department for information to register for this course.

GVPT406 **International Organizations**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Prerequisite: GVPT200. Restriction: Must be in Government & Politics program; and junior standing or higher. Or must be in Government & Politics: International Relations program; and junior standing or higher.

A basic introduction to the full range of international organizations that have come into being over the past century and one-half, including those that aspire to be universal or global, those with a geopolitical or regional focus, and those that address specific structural or functional areas of human endeavor or issue areas.

0101	Todd Allee	Seats (Total: 30)
	MW 3:30pm - 4:45pm	TYD 1118

GVPT409A **Seminar in International Relations and World Politics; Peace, Justice, and Conflict Resolution**

Credits: 3

Grading Method: Regular, Pass-Fail, Audit

Reading, writing, and research on topics in international relations and world politics. Both substantive issues and methodological approaches will be considered.

Restriction: Must be in Government & Politics program or Government & Politics: International Relations program. This course examines classic and contemporary perspectives on peace, justice, and conflict resolution before, during, and after armed conflict.

0101	Gabriella Lloyd	Seats (Total: 30)
	TuTh 2:00pm - 3:15pm	TYD 2109

GVPT409C **Seminar in International Relations and World Politics; Conflict and the Environment**

Credits: 3

Grading Method: Regular, Pass-Fail, Audit

Reading, writing, and research on topics in international relations and world politics. Both substantive issues and methodological approaches will be considered.

Restriction: Must be in Government & Politics program or Government & Politics: International Relations program. Credit only granted for GVPT309A, ENSP399A, or GVPT409C. This course will examine the complex nexus of security and environmental change. Specifically, the impact of environmental change on conflict - how it may increase conflict through resource scarcity, environmental refugee migration, Arctic territorial claims and state weakness, or decrease it through damage to military infrastructure and disaster diplomacy. It will also cover the impact of war on the environment, as in the cases of military base pollution and nuclear/chemical warfare.

0101	Caitlin McCulloch	Seats (Total: 30)
	TuTh 2:00pm - 3:15pm	TYD 2111

GVPT409D **Seminar in International Relations and World Politics; Immigration and Crossing Borders: Causes, Consequences, and New Questions**

Credits: 3

Grading Method: Regular, Pass-Fail, Audit

Reading, writing, and research on topics in international relations and world politics. Both substantive issues and methodological approaches will be considered.

Restriction: Must be in Government & Politics program or Government & Politics: International Relations program.

0101	Brandon Ives	Seats (Total: 30)
	TuTh 3:30pm - 4:45pm	TYD 1102

GVPT409E **Seminar in International Relations and World Politics; International Relations of East Asia**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Reading, writing, and research on topics in international relations and world politics. Both substantive issues and methodological approaches will be considered.

Restriction: Must be in Government & Politics program or Government & Politics: International Relations program.

0101	Scott Kastner	Seats (Total: 30)
	TuTh 9:30am - 10:45am	TYD 1101

GVPT409H **Seminar in International Relations and World Politics; Peace, Justice, and Conflict Resolution**

(Perm req)

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Reading, writing, and research on topics in international relations and world politics. Both substantive issues and methodological approaches will be considered.

Restriction: Must be in the Government & Politics Honors program. This course examines classic and contemporary perspectives on peace, justice, and conflict resolution before, during, and after armed conflict.

0101	Gabriella Lloyd	Seats (Total: 20)
	TuTh 11:00am - 12:15pm	TYD 1101

GVPT409P **Seminar in International Relations and World Politics; Conflict in the International System**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Reading, writing, and research on topics in international relations and world politics. Both substantive issues and methodological approaches will be considered.

Restriction: Must be in Government & Politics program or Government & Politics: International Relations program. Prerequisite: GVPT200. This course is designed to provide an overview on conflict in the international system. Students will examine different types of conflict including state-to-state war, civil war, terrorism, and non-violent conflict. The course will describe trends in the incidence of conflict, as well astheories about the causes of conflict and conflict resolution. In addition, we will examine conflicts in Central Africa and the Middle East in detail.

0101	David Cunningham MW 2:00pm - 3:15pm	Seats (Total: 30) TYD 1132

GVPT409R **Seminar in International Relations and World Politics; Political Economy of Foreign Aid**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Reading, writing, and research on topics in international relations and world politics. Both substantive issues and methodological approaches will be considered.

Restriction: Must be in Government & Politics program or Government & Politics: International Relations program. This course will examine the political causes and effects of foreign aid, including development, democracy, and conflict.

0101	Shannon Carcelli TuTh 2:00pm - 3:15pm	Seats (Total: 30) TYD 1132

GVPT409T **Seminar in International Relations and World Politics; Political Economy of the Middle East**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Reading, writing, and research on topics in international relations and world politics. Both substantive issues and methodological approaches will be considered.

Contact department for information to register for this course.

GVPT409V **Seminar in International Relations and World Politics; Game Theory and International Security**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Reading, writing, and research on topics in international relations and world politics. Both substantive issues and methodological approaches will be considered.

Contact department for information to register for this course.

GVPT409X **Seminar in International Relations and World Politics; Arms Control in the Nuclear Realm**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Reading, writing, and research on topics in international relations and world politics. Both substantive issues and methodological approaches will be considered.

Contact department for information to register for this course.

GVPT409Y **Seminar in International Relations and World Politics; Arab-Israeli Relations**

Credits: 3

Grading Method: Regular, Pass-Fail, Audit

Reading, writing, and research on topics in international relations and world politics. Both substantive issues and methodological approaches will be considered.

Contact department for information to register for this course.

GVPT409Z **Seminar in International Relations and World Politics; International Relations: Theory and Institutions**

Credits: 3

Grading Method: Regular, Pass-Fail, Audit

Reading, writing, and research on topics in international relations and world politics. Both substantive issues and methodological approaches will be considered.

Restricted to undergraduate GVPT majors only. All other majors placed on hold-file.

Contact department for information to register for this course.

GVPT423 **Elections and Electoral Behavior**

Credits: 3

Grading Method: Regular, Pass-Fail, Audit

Prerequisite: GVPT241 and GVPT170. Restriction: Must be in Government & Politics program.

An examination of various topics relating to elections; the focus includes the legal structure under which elections are conducted, the selection and nomination process, the conduct of election campaigns, and patterns of political participation and voting choice in different types of elections.

0101	James Gimpel Tu 2:00pm - 4:45pm	Seats (Total: 30) TYD 1114

GVPT432 **Civil Rights and the Constitution**

Credits: 3

Grading Method: Regular, Pass-Fail, Audit

Prerequisite: GVPT170 and GVPT331. Restriction: Must be in one of the following programs (Government & Politics; Government & Politics: International Relations).

A study of civil rights in the American constitutional context, emphasizing freedom of religion, freedom of expression, minority discrimination, and the rights of defendants.

Jointly offered with MLAW358Y.Credit only graned for GVPT432 or MLAW358Y .

0101	Michael Spivey MW 3:00pm - 4:15pm	Seats (Total: 70) TYD 1102

GVPT439A **Seminar in Public Law; Comparative Constitutional Law**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Reading, writing, and research on topics in public law. Both substantive issues and methodological approaches will be considered.

Restriction: Must be in Government & Politics program; or must be in Government & Politics: International Relations program. Introduction to basic issues of constitutional law in a global and comparative perspective. Topics: constitution making and amending, enforcing,suspending, and reasoning with constitutions. Federalism and separation of powers. Fundamental rights. Constitutionalism outside the West. Constitutions beyond states. In this course the US Constitution will not be discussed.

0101	Karol Soltan	Seats (Total: 30)
	TuTh 11:00am - 12:15pm	LEF 1201

GVPT439T **Seminar in Public Law; Constitutional Difficulties in the Age of Trump**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Reading, writing, and research on topics in public law. Both substantive issues and methodological approaches will be considered.

Restrictions: Must be in Government & Politics program or Government & Politics: International Relations program. Also offered as MLAW358V. Credit only granted for MLAW358V or GVPT439T.

0101	Michael Spivey	Seats (Total: 10)
	MW 9:30am - 10:45am	TYD 2106

GVPT442 **History of Political Theory--Medieval to Recent**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Prerequisite: GVPT241. Restriction: Must be in Government & Politics program.

A survey of the principal theories set forth in the works of writers from Machiavelli to Nietzsche.

Contact department for information to register for this course.

GVPT445H **Marxism and Postmarxism**

(Perm req)

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Restriction: Must be in a major within BSOS-Government & Politics department.

The study of Marxist thought and an assessment of the critical transformations and reassessments of the theory and practice of Marxism.

Restriction: Must be in the Government and Politics Honors program.

0101	Vladimir Tismaneanu	Seats (Total: 20)
	Th 2:00pm - 4:45pm	TYD 1114

GVPT449E **Seminar in Political Philosophy; Social Philosophy and Political Economy**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Reading, writing, and research on topics in political philosophy. Both substantive issues and methodological approaches will be considered.

Also offered as PHPE401. Credit only granted for PHPE401 or GVPT449E. Restriction: Must be in Government & Politics program or Government & Politics: International Relations program. This course examines capitalism and socialism as differing modes of economic production through several different theoretical lenses. We begin by examining capitalism and socialism as they developed historically, by looking primarily at the work of Adam Smith and Karl Marx. Then, we turn our attention to one of the most important debates 20th century economics: to what extent rational economic calculation is possible in a socialist commonwealth. After this we turn our attention to how capitalist and socialist modes of production functioned in practice. We end by turning our attention to the ethics of capitalism and socialism: which mode of economic production is most just?

0101	Christopher Morris	Seats (Total: 5)
	TuTh 2:00pm - 3:15pm	ESJ B0320

GVPT449G **Seminar in Political Philosophy; Global Justice**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Reading, writing, and research on topics in political philosophy. Both substantive issues and methodological approaches will be considered.

Restriction: Must be in Government & Politics program; or must be in Government & Politics: International Relations program. The course begins by laying the foundation for the debate over the scope and limits of global justice, and then examines some topics that arise when thinking globally about justice, such as poverty, the environment and waging war. The course ends by considering the possibility of creating a cosmopolitan framework within which to adjudicate between competing interests in the globalized world.

0101	Sujith Kumar	Seats (Total: 30)
	TuTh 3:30pm - 4:45pm	TYD 1108

GVPT449P **Seminar in Political Philosophy; The Psychotic Edge of Political Life**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Reading, writing, and research on topics in political philosophy. Both substantive issues and methodological approaches will be considered.

Must be in Government & Politics program or Government & Politics: International Relations program. This course in modern political theory will cover critical concepts in political thought: genocide, legitimacy, responsibility resistance, and political ethics.

0101	James Glass	Seats (Total: 20)
	W 3:30pm - 6:15pm	TYD 1132

GVPT449X **Seminar in Political Philosophy; Ethics & Global Policy**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Reading, writing, and research on topics in political philosophy. Both substantive issues and methodological approaches will be considered.

Contact department for information to register for this course.

GVPT449Y **Seminar in Political Philosophy; Environmental Political Theory**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Reading, writing, and research on topics in political philosophy. Both substantive issues and methodological approaches will be considered.

Contact department for information to register for this course.

GVPT456 **The Politics of Terrorism**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Prerequisite: GVPT200. Restriction: Must be in Government & Politics program; or must be in Government & Politics: International Relations program. Credit only granted for: GVPT456 or GVPT459T. Formerly: GVPT459T.

Examination of the definition, causes and organization of terrorist activity, along with key domestic and international counter- and anti-terrorism responses. Special emphasis on challanges and opportunities to the scientific study of terrorism.

0101	Kanisha Bond	Seats (Total: 30)
	TuTh 9:30am - 10:45am	TYD 1114

GVPT457 **American Foreign Relations**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Prerequisite: GVPT200. Restriction: Must be in Government & Politics program; and junior standing or higher.

The principles and machinery of the conduct of American foreign relations and an analysis of the major foreign policies of the United States.

0101	Shannon Carcelli	Seats (Total: 30)
	TuTh 12:30pm - 1:45pm	TYD 1101

GVPT458A **Special Topics in Study Abroad IV**

Credits: 1-6 Grading Method: Regular, Pass-Fail, Audit

Special topics course taken as part of an approved study abroad program.

Contact department for information to register for this course.

GVPT458C **Special Topics in Study Abroad IV**

Credits: 1-6 Grading Method: Regular, Pass-Fail, Audit

Special topics course taken as part of an approved study abroad program.

Contact department for information to register for this course.

GVPT458G **Special Topics in Study Abroad IV; Czech Society Transformation**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Special topics course taken as part of an approved study abroad program.

Contact department for information to register for this course.

GVPT458J **Special Topics in Study Abroad IV; Economic and Political Institutions of the European Union**

Credits: 3

Grading Method: Regular, Pass-Fail, Audit

Special topics course taken as part of an approved study abroad program.

Contact department for information to register for this course.

GVPT458O **Special Topics in Study Abroad IV**

Credits: 3

Grading Method: Regular, Pass-Fail, Audit

Special topics course taken as part of an approved study abroad program.

Contact department for information to register for this course.

GVPT458U **Special Topics in Study Abroad IV; Spanish History and Politics: 1936 to the Present**

Credits: 1-6

Grading Method: Regular, Pass-Fail, Audit

Special topics course taken as part of an approved study abroad program.

Contact department for information to register for this course.

GVPT459A **Seminar in Comparative Politics; Ethnic Politics**

Credits: 3

Grading Method: Regular, Pass-Fail, Audit

Reading, writing, and research on topics in comparative politics. Both substantive issues and methodological approaches will be considered.

Restriction: Must be in Government & Politics program or Government & Politics: International Relations program.

0101	Brandon Ives	Seats (Total: 30)
	TuTh 12:30pm - 1:45pm	TYD 0102

GVPT459I **Seminar in Comparative Politics; Thinking Like a Citizen: Civic Ideals and Civic Practices**

Credits: 3

Grading Method: Regular, Pass-Fail, Audit

Reading, writing, and research on topics in comparative politics. Both substantive issues and methodological approaches will be considered.

Prerequisite: GVPT200 or GVPT280. Restriction: Must be in Government & Politics program or Government & Politics: International Relations program. This course is an introduction to the emerging field of civic studies. It takes as a starting point the idea of citizens as co-creators of their many worlds, their various communities, their countries, and of course the literal world. We will look into what knowledge and what ways of thinking are most helpful to such co-creators. Topics will include: civic work in the small (human interaction, politics, power resources), finding and building shared ground, impediments to civic action (problem of collective action, limited human brain, the power of the status quo), and venues of civic action (including communities, social movements, countries, and the world).

0101	Karol Soltan TuTh 2:00pm - 3:15pm	Seats (Total: 30) TYD 1108

GVPT459M **Seminar in Comparative Politics; Social Movements**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Reading, writing, and research on topics in comparative politics. Both substantive issues and methodological approaches will be considered.

Restriction: Must be in Government & Politics program or Government & Politics: International Relations program. Prerequisite: GVPT200 or GVPT280 Discussion-intensive advanced seminar exploring the ways that social movements mobilize, the role of governments and bystanders in shaping that process, and the outcomes that they produce through connecting history, theory, and scholarship to contemporary politics. Special topics include youth movements and campus activism, transnationalism, and violent vs. non-violent strategies.

0101	Kanisha Bond TuTh 11:00am - 12:15pm	Seats (Total: 30) TYD 1118
0201	Kanisha Bond TuTh 12:30pm - 1:45pm	Seats (Total: 30) TYD 1118

GVPT459P **Seminar in Comparative Politics; The Revolutions of 1989 and Their Consequences: Communism and Post-Communism in East-Central Europe**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Reading, writing, and research on topics in comparative politics. Both substantive issues and methodological approaches will be considered.

Restriction: Must be in Government & Politics program or Government & Politics: International Relations Program.

0101	Vladimir Tismaneanu	Seats (Total: 30)
	TuTh 11:00am - 12:15pm	TYD 2109

GVPT459Y **Seminar in Comparative Politics; Comparative Political Ideology**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Reading, writing, and research on topics in comparative politics. Both substantive issues and methodological approaches will be considered.

Restriction: Must be in Government & Politics program or Government & Politics: International Relations program. Recommended Prerequisites: GVPT280 and GVPT282. A comparative survey of leading political ideologies, including their origins, core tenets, and implications. Specific attention is given to ideology's relationship to material practice, both western and non-western interpretations, and ramifications for contemporary politics . Includes nationalism, populism, religious fundamentalism, liberalism, socialism, and neoliberalism, among other influential ideologies.

0101	Calvert Jones	Seats (Total: 30)
	MW 2:00pm - 3:15pm	TYD 1101

GVPT461 **Local Politics and Government**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Prerequisite: GVPT170. Restriction: Must be in Government & Politics program; or must be in Government & Politics: International Relations program. Credit only granted for: GVPT461 or GVPT479L. Formerly: GVPT479L.

An introduction to local government and politics in the U.S. context. The course explores the evolution of local jurisdictions, particularly cities, and the politics of local level decision making.

0101	Richard Engstrom	Seats (Total: 30)
	Th 7:00pm - 9:45pm	TYD 1101

GVPT473H **The U.S. Congress**

(Perm req)

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Prerequisite: GVPT241 and GVPT170. Restriction: Junior standing or higher. And must be in Government & Politics program; or must be in Government & Politics: International Relations program.

A detailed survey of lawmaking and the legislative process, emphasizing the U.S. Congress, and its members.

Restriction: Must be in the Government and Politics Honors program.

0101	Kristina Miler	Seats (Total: 20)
	TuTh 11:00am - 12:15pm	TYD 1114

GVPT479C **Seminar in American Politics; Civic Engagement in Action**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Reading, writing, and research on topics in American politics. Both substantive issues and methodological approaches will be considered.

Restriction: Must be in Government & Politics program or Government & Politics: International Relations program. This course will help students understand Maryland politics through direct engagement with the state legislative process. Students will identify a bill that is being considered in the current Maryland legislative session. They will conduct analysis and engage in advocacy work needed to affect the preferred outcome of the bill. Direct work on legislation will be integrated with the study of state political institutions and processes. As such, the course will involve travel to the Maryland State Legislature in Annapolis to meet with lawmakers and policy advocates. Students should have the flexibility in their schedules to be able to make at least two trips to Annapolis during the semester. While several class sessions will be dedicated for this purpose, students will need more than the hour and a half class time to make the trip and engage with legislative stakeholders.

0101	Stella Rouse	Seats (Total: 30)
	TuTh 11:00am - 12:15pm	TYD 2111

GVPT479K **Seminar in American Politics; Presidential Elections**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Reading, writing, and research on topics in American politics. Both substantive issues and methodological approaches will be considered.

Restriction: Must be in Government & Politics program or Government & Politics: International Relations program. Prerequisite: GVPT170 This class will explore American Presidential elections. While noting the current campaign unfolding around us, we are interested in the process, not just the events of 2020. We examine the institutions that structure candidates' and voters' behavior and how they have developed historically. We also look at American Presidential elections in comparative perspective, noting electoral arrangements in other countries.

0101	David Karol	Seats (Total: 30)
	TuTh 11:00am - 12:15pm	TYD 0102

GVPT479M **Seminar in American Politics; Political Science Survey Methods and Experience**

Credits: 3

Grading Method: Regular, Pass-Fail, Audit

Reading, writing, and research on topics in American politics. Both substantive issues and methodological approaches will be considered.

Prerequisite: GVPT170 and GVPT201. Restriction: Must be in Government & Politics program or Government & Politics: International Relations program. Surveys help us understand social problems, assess support for public policies, and explain political outcomes. Students will experience from beginning to the end the process of conducting survey research. This includes question wording, question placement, mechanisms for testing response time and survey length, and issues related to survey execution in the field. Students will then evaluate and analyze the survey data.

0101	Michael Hanmer	Seats (Total: 25)
	TuTh 12:30pm - 1:45pm	TYD 0111

GVPT481 **Government and Administration of Russia and the States of the Former Soviet Union**

Credits: 3

Grading Method: Regular, Pass-Fail, Audit

Prerequisite: GVPT200; and (GVPT282 or GVPT280). Restriction: Must be in Government & Politics program.

A comparative study of the governmental systems and political processes of the states of the former Soviet Union.

Contact department for information to register for this course.

GVPT485 **Government and Politics of the Middle East**

Credits: 3

Grading Method: Regular, Pass-Fail, Audit

Prerequisite: GVPT200; and (GVPT282 or GVPT280). Restriction: Must be in Government & Politics program. Credit only granted for: GVPT485 or GVPT459E. Formerly: GVPT459E.

A comparative study of the governmental systems and political processes of Middle Eastern countries, with special emphasis on the problems of nation-building in emergent countries.

Contact department for information to register for this course.

GVPT487 **Government and Politics of China**

Credits: 3

Grading Method: Regular, Pass-Fail, Audit

Restriction: Must be in one of the following programs (Government & Politics; Government & Politics: International Relations) ; and junior standing or higher. Credit only granted for: GVPT359A or GVPT487. Formerly: GVPT359A.

Discussion of major issues in the study of the domestic politics of the People's Republic of China.

0101	Margaret Pearson	Seats (Total: 30)
	MW 2:00pm - 3:15pm	TYD 2108

GVPT722 **Advanced Quantitative Methods For Political Science**

Credits: 3 Grading Method: Regular, Audit, Sat-Fail

Prerequisite: GVPT622; or permission of instructor.

Introduction to multivariate analysis. Elementary matrix algebra, multiple linear and curvilinear correlation and regression, analysis of variance, canonical correlation and regression, discriminant analysis, and several types of factor analysis.

0101	Patrick Wohlfarth	Seats (Total: 12)
	W 12:30pm - 3:15pm	LEF 0229

GVPT729M **Special Topics in Quantitative Political Analysis; Multilevel Analysis**

Credits: 3 Grading Method: Regular, Audit, Sat-Fail

An intensive examination of special topics in quantitative methods of political analysis in such areas as survey research methods, exploratory data analysis, advanced data management techniques, or advanced methods of policy analysis.

0101	Ernesto Calvo	Seats (Total: 12)
	W 12:30pm - 3:15pm	TYD 1108

GVPT771 **Seminar in American Political Behavior**

Credits: 3 Grading Method: Regular, Audit, Sat-Fail

This is the core seminar in American political behavior. The course will deal with prominent theoretical and empirical issues in the areas of voting, public opinion, political participation and other aspects of political behavior in the American context.

0101	Lilliana Mason	Seats (Total: 12)
	Tu 12:30pm - 3:15pm	TYD 1111

GVPT799 **Master's Thesis Research**

Credits: 1-6 Grading Method: Sat-Fail

Contact department for information to register for this course.

GVPT808B **Selected Topics in Functional Problems in International Relations; Conflict and World Politics**

Credits: 3 Grading Method: Regular, Audit, Sat-Fail

An examination of the major substantive issues in contemporary international relations.

0101	Paul Huth	Seats (Total: 12)
	M 12:30pm - 3:15pm	TYD 1136

GVPT808C **Selected Topics in Functional Problems in International Relations; Prospectus Seminar in International Relations & Comparative Relations**

Credits: 3 Grading Method: Regular, Audit, Sat-Fail

An examination of the major substantive issues in contemporary international relations.

0101	Kathleen Cunningham	Seats (Total: 12)
	Tu 12:30pm - 3:15pm	TYD 1136

GVPT831 **Formal Theories of Politics I**

Credits: 3 Grading Method: Regular, Audit, Sat-Fail

Survey of major formal theories of politics, with emphasis on those theories based on the assumptions of rationality. The theory of public goods, game theory, coalition theory, and the theoretical properties of voting systems.

0101	Piotr Swistak	Seats (Total: 12)
	W 3:30pm - 6:15pm	TYD 2108
0201	Piotr Swistak	Seats (Total: 12)
	Contact instructor or department for details.	

GVPT849 **Readings in Government and Politics**

(Perm req)

Credits: 3 Grading Method: Regular, Audit, Sat-Fail

Guided readings and discussions on selected topics in political science.

Contact department for information to register for this course.

GVPT868L **Problems of State and Local Government; State and Local Politics**

Credits: 3

Grading Method: Regular,
Audit, Sat-Fail

Report of topics assigned for individual study in the field of state local government throughout the United States.

0101	Stella Rouse	Seats (Total: 12)
	M 12:30pm - 3:15pm	TYD 1111

GVPT873 **Seminar in Legislatures and Legislation**

Credits: 3

Grading Method: Regular,
Audit, Sat-Fail

Reports on topics assigned for individual study and reading about the composition and organization of legislatures and about the legislative process.

0101	Kristina Miler	Seats (Total: 12)
	Tu 3:30pm - 6:15pm	TYD 1111

GVPT888B **Selected Topics in Comparative Governmental Institutions; Democracy and Democratization**

Credits: 3

Grading Method: Regular,
Audit, Sat-Fail

An examination of special topics in comparative politics.

0101	Isabella Alcaniz	Seats (Total: 12)
	Th 9:30am - 12:15pm	TYD 1111

GVPT889B **Selected Topics in Area Problems in International Relations; International Relations Theory and East Asia**

Credits: 3

Grading Method: Regular,
Audit, Sat-Fail

Special topics concerning regional problems in the relations of states.

0101	Scott Kastner	Seats (Total: 12)
	Th 12:30pm - 3:15pm	TYD 1136

GVPT898 **Pre-Candidacy Research**

Credits: 1-8 Grading Method: Regular, Sat-Fail

Guided readings and discussions on selected topics in political science.

Contact department for information to register for this course.

GVPT899 **Doctoral Dissertation Research**

(Perm req)

Credits: 6 Grading Method: Sat-Fail

Contact department for information to register for this course.

HACS ACES-Cybersecurity Spring 2020

HACS101 **Applied Cybersecurity Foundations**

Credits: 2 Grading Method: Regular, Pass-Fail

Prerequisite: Minimum grade of C- in HACS100. Restriction: Must be a student in the ACES (Advanced Cybersecurity Experience for Students) Living-Learning Program.

Prepares students for team research that will be conducted in HACS 200. Students gain an understanding across the breadth of cybersecurity including system monitoring, networking basics and penetration testing. An applied approach to statistics is also included to prepare students to assess the data collected for their research projects. The course is conducted with a hands-on approach applying virtual environments to practice the concepts learned in the technical lectures each week.

Restriction: Must be a student in the ACES (Advanced Cybersecurity Experience for Students) Living-Learning Program. Prerequisite: HASC100

0101	Jandelyn Plane MW 9:00am - 9:50am	Seats (Total: 27) PFH 1111
0201	Jandelyn Plane MW 10:00am - 10:50am	Seats (Total: 27) PFH 1111
0301	Jandelyn Plane MW 11:00am - 11:50am	Seats (Total: 27) PFH 1111

HACS202 **Group Project in Cybersecurity**

Credits: 3 Grading Method: Regular, Pass-Fail

Restriction: Must be a first-year student in the ACES (Advanced Cybersecurity Experience for Students) Minor Program; and cannot have been an ACES Living-Learning Program student (i.e., have taken HACS100 and HACS102).

The group project in this course will combine technical, analytical, and communication skills, further engaging students in the practice of cybersecurity. Students will learn about design concepts and data analysis as they engage in a team project designing, deploying, and collecting and analyzing data from a honeypot. The hands-on nature of the course will give students experiential insight about how and why attackers attack and how to engage in protective measures to prevent attacks.

Restriction: Must be a student in the ACES (Advanced Cybersecurity Experience for Students) Minor Program.

0101	Bertrand Sobesto	Seats (Total: 20)
	TuTh 6:30pm - 7:45pm	PFH 1111

HACS208A **Accounting and Economic Aspects of Cybersecurity**

Credits: 3 | Grading Method: Regular, Pass-Fail | General Education: DSHS, SCIS

Restriction: Must be a student in the ACES (Advanced Cybersecurity Experience for Students) Living-Learning Program. Repeatable to 6 credits if content differs.

0101	Lawrence Gordon	Seats (Total: 20)
	TuTh 2:00pm - 3:15pm	VMH 1307

HACS208E **Introduction to Reverse Engineering**

Credits: 3 | Grading Method: Regular, Pass-Fail | General Education: DSSP

Restriction: Must be a student in the ACES (Advanced Cybersecurity Experience for Students) Living-Learning Program. Repeatable to 6 credits if content differs.

0101	Aaron Hertz	Seats (Total: 25)
	W 3:00pm - 5:45pm	PFR 0103

HACS208I **Security Incident Handling and Management**

Credits: 3 | Grading Method: Regular, Pass-Fail | General Education: DSSP

Restriction: Must be a student in the ACES (Advanced Cybersecurity Experience for Students) Living-Learning Program. Repeatable to 6 credits if content differs.

0101	Paul Bellis	Seats (Total: 25)
	Tu 5:00pm - 7:45pm	PFR 0103

HACS208P **Seminar in Cybersecurity; Beyond Technology, the Policy Implications of Cyberspace**

Credits: 3 | Grading Method: Regular, Pass-Fail | General Education: DSHS, SCIS

Explores various lenses of cybersecurity in order to promote an interdisciplinary understanding of the field. Although each section may focus on a different topic, each integrates active student engagement, communication, critical communication, critical thinking, and teamwork.

Restriction: Must be a student in the ACES (Advanced Cybersecurity Experience for Students) Living-Learning Program. Repeatable to 6 credits if content differs.

0101	Charles Harry	Seats (Total: 25)
	TuTh 11:00am - 12:15pm	PFR 1111

HACS279 **Undergraduate Research in Cybersecurity**

(Perm req)

Credits: 1-3 | Grading Method: Regular, Pass-Fail

The Advanced Cybersecurity Experience for Students (ACES) program encourages its students to engage in research in order to gain greater insight into a specific area within cybersecurity, obtain an appreciation for the subtleties and difficulties associated with the production of knowledge and fundamental new applications, and to prepare for graduate school and the workforce.

Contact department for information to register for this course.

HACS287 **Undergraduate Research in Cybersecurity**

(Perm req)

Credits: 3 | Grading Method: Regular, Pass-Fail | General Education: DSSP

Restriction: Must be a student in the ACES (Advanced Cybersecurity Experience for Students) Living-Learning Program; and permission of UGST-HCOL-ACES Cybersecurity Program.

The Advanced Cybersecurity Experience for Students (ACES) program encourages its students to engage in research in order to gain greater insight into a specific area within cybersecurity, obtain an appreciation for the subtleties and difficulties associated with the production of knowledge and fundamental new applications, and to prepare for graduate school and the workforce.

Contact department for information to register for this course.

HACS297 **Cybersecurity Experience Reflection**

(Perm req)

Credits: 3

Grading Method: Regular, Pass-Fail

Restriction: Must be a student in the ACES (Advanced Cybersecurity Experience for Students) Living-Learning Program; and permission of UGST-HCOL-ACES Cybersecurity Program.

Cybersecurity experience is defined as an experiential learning activity either with a University of Maryland entity (such as the Division of Information Technology, the ACES competition team or in an ACES outreach program), or with an external organization that will provide valuable, hands-on experience to supplement the knowledge learned in the other ACES coursework.

0101	Amy Andrade, David Bonilla-Ciferri M 4:00pm - 6:45pm	Seats (Total: 20) ATL 2352

HACS318A **Cybersecurity Professionals Colloquium Series; Current Issues**

Credits: 1

Grading Method: Regular, Pass-Fail

The Cybersecurity Professionals Colloquium Series explores various lenses of cybersecurity in order to promote an interdisciplinary understanding of the field. The colloquium series consists of guest lectures of cybersecurity professionals. In written assignments, students will not only summarize the lecture content but also reflect on the significance of the lecture content for the field of cybersecurity.

Restriction: Must be a student in the ACES (Advanced Cybersecurity Experience for Students) Minor Program

0101	Cassandra Harrington W 6:30pm - 8:30pm	Seats (Total: 75) PFR 1105

HACS408C **Advanced Seminar in Cybersecurity; Interpersonal Cyber Communications**

Credits: 3

Grading Method: Regular, Pass-Fail

Explores various lenses of cybersecurity in order to promote an interdisciplinary understanding of the field. Although each section may focus on a different topic, each integrates active student engagement, communication, critical communication, critical thinking, and teamwork.

Restriction: Must be a student in the ACES (Advanced Cybersecurity Experience for Students) Minor Program.

0101	Megean Garvin M 6:15pm - 9:00pm	Seats (Total: 20) ASY 3215

HACS408V **Advanced Seminar in Cybersecurity; Data Analysis and Visualization for Cybersecurity**

Credits: 3

Grading Method: Regular, Pass-Fail

Explores various lenses of cybersecurity in order to promote an interdisciplinary understanding of the field. Although each section may focus on a different topic, each integrates active student engagement, communication, critical communication, critical thinking, and teamwork.

Restriction: Must be a student in the ACES (Advanced Cybersecurity Experience for Students) Minor Program. Credit only granted for HACS402 or HACS408V.

0101	Edward Condon TuTh 5:00pm - 6:15pm	Seats (Total: 25) ATL 2416

HACS479 **Undergraduate Research in Cybersecurity**

(Perm req)

Credits: 1-3

Grading Method: Regular, Pass-Fail, Audit

The Advanced Cybersecurity Experience for Students (ACES) program encourages its students to engage in research in order to gain greater insight into a specific area within cybersecurity, obtain an appreciation for the subtleties and difficulties associated with the production of knowledge and fundamental new applications, and to prepare for graduate school and the workforce.

Contact department for information to register for this course.

HACS498 **Cybersecurity Group Problem Solving**

(Perm req)

Credits: 3

Grading Method: Regular, Pass-Fail

The Advanced Cybersecurity Experience for Students (ACES) program encourages its students to engage in team problem solving activities in order to gain greater insight into a specific area within cybersecurity and to obtain an appreciation for the subtleties and difficulties associated with these activities in order to prepare students for graduate school and the workforce. Students engage in a semester long problem solving or development project under the mentorship of a industry specialist and with the guidance of university faculty. Through the exercise the students will develop teamwork experience and professional communication skills in addition to experience of the project itself. The project might be evaluation, creation, testing or analysis of some area of cybersecurity as needed by the mentor-sponsor. A contract of what will be accomplished is required must be agreed upon by the mentor, the student and the ACES leadership before the project can begin.

0101	Instructor: TBA Contact instructor or department for details.	Seats (Total: 5)
0201	Darren King, Ryan Kranz Contact instructor or department for details.	Seats (Total: 5)

0301	Katherine Massey, Howard Michael, Joseph Dougherty Contact instructor or department for details.	Seats (Total: 5)

HDCC Design Cultures and Creativity Spring 2020

HDCC106 **Introduction to Digital and Creativity II**

Credits: 3 | Grading Method: Regular, Pass-Fail, Audit | General Education: DSHU

Restriction: Must be in the Digital Cultures and Creativity Honors College Living/Learning program.

Introduction to the methods and theory of digital cultural production, with emphasis on creative and expressive platforms.

0101	Alexis Lothian TuTh 11:00am - 12:15pm	Seats (Total: 17) PFR 0111
0201	Sahar Khamis Th 4:00pm - 6:30pm	Seats (Total: 17) KEY 0124
0301	Evan Golub MW 4:00pm - 5:15pm	Seats (Total: 17) PFR 0111
0401	Daniel Greene MW 2:00pm - 3:15pm	Seats (Total: 17) PFR 0111

HDCC209A **Practicum in Digital Cultures and Creativity**

Credits: 2 | Grading Method: Regular, Pass-Fail, Audit | General Education: DSSP

Practicum in Digital Cultures and Creativity in which students will develop their program capstone projects under the supervision of a faculty mentor, with regular checkpoints and presentations to track progress.

0101	DB Bauer Th 5:00pm - 6:45pm	Seats (Total: 15) PFR 0111

HDCC209B **Practicum in Digital Cultures and Creativity**

Credits: 2 | Grading Method: Regular, Pass-Fail, Audit | General Education: DSSP

Practicum in Digital Cultures and Creativity in which students will develop their program capstone projects under the supervision of a faculty mentor, with regular checkpoints and presentations to track progress.

0101	Eva Peskin	Seats (Total: 15)
	Tu 2:00pm - 3:45pm	PFR 0111

HDCC209C **Practicum in Digital Cultures and Creativity**

Credits: 2 | Grading Method: Regular, Pass-Fail, Audit | General Education: DSSP

Practicum in Digital Cultures and Creativity in which students will develop their program capstone projects under the supervision of a faculty mentor, with regular checkpoints and presentations to track progress.

0101	Jessica Lu	Seats (Total: 15)
	Tu 5:00pm - 6:45pm	PFR 0111

HDCC209D **Practicum in Digital Cultures and Creativity**

Credits: 2 | Grading Method: Regular, Pass-Fail, Audit | General Education: DSSP

Practicum in Digital Cultures and Creativity in which students will develop their program capstone projects under the supervision of a faculty mentor, with regular checkpoints and presentations to track progress.

0101	Jessica Lu	Seats (Total: 15)
	M 12:00pm - 1:45pm	PFR 0111

HDCC379 **Digital Cultures and Creativity Independent Study**

Credits: 1-3 | Grading Method: Regular, Pass-Fail

Involves research and/or creative scholarship directed by individual DCC faculty outside of the formal classroom structure.

0101	Jason Farman	Seats (Total: 5)
	Contact instructor or department for details.	

HEBR Hebrew Spring 2020

HEBR107 **Intensive Elementary Hebrew II**

Credits: 4

Grading Method: Regular, Pass-Fail, Audit

Prerequisite: HEBR106 or HEBR111; or must have appropriate score on Foreign Language Placement Assessment; or students who have taken courses with comparable content may contact the department. Credit only granted for: HEBR107 or HEBR112.

A continuation of intensive study of fundamentals of Hebrew reading, writing, listening, speaking and Israeli culture. Covers past tense in all verb categories, basic syntax and builds vocabulary.

0101	Avital Karpman TuTh 11:00am - 12:15pm Class time/details on ELMs	Seats (Total: 15) JMZ 3118 ONLINE
0201	Avital Karpman TuTh 2:00pm - 3:15pm Class time/details on ELMs	Seats (Total: 15) JMZ 3118 ONLINE

For other courses, see JWST - Jewish Studies.

HEBR112 Elementary Hebrew II

Credits: 6

Grading Method: Regular, Pass-Fail, Audit

Prerequisite: HEBR111; or must have appropriate Foreign Language Placement Test (FLPT) score. Restriction: Must not have completed HEBR103; and must not have completed HEBR104. Credit only granted for: (HEBR103 and HEBR104) or HEBR112.

Continuation of HEBR 111.

Contact department for information to register for this course.

HEBR207 Intensive Intermediate Hebrew II

Credits: 4

Grading Method: Regular, Pass-Fail, Audit

Prerequisite: Must have completed HEBR206 OR HEBR211; or have the appropriate Score on the Foreign Language Placement Assessment; or students who have taken courses with comparable content may contact the department. Credit only granted for: HEBR207 or HEBR212.

A review of the fundamentals of Hebrew grammar, reading, writing, listening and speaking.

0101	Avital Karpman TuTh 12:30pm - 1:45pm Class time/details on ELMs	Seats (Total: 15) JMZ 1103 ONLINE

HEBR212 **Intermediate Hebrew II**

Credits: 6 | Grading Method: Regular, Pass-Fail, Audit | CORE: HO

Prerequisite: HEBR211; or permission of ARHU-School of Languages, Literatures, and Cultures department. Restriction: Must not have completed HEBR203; and must not have completed HEBR204. Credit only granted for: (HEBR203 and HEBR204) or HEBR212.

Continuation of HEBR211.

Contact department for information to register for this course.

HEBR249G **Special Topics in Hebrew Studies; Gender and Identity in Israeli Society**

Credits: 3 | Grading Method: Regular, Pass-Fail, Audit

A broad range of cultural and societal topics pertaining to the communication of Hebrew.

Prerequisite: Must have completed HEBR207 or HEBR212; or have the appropriate score on the Foreign Language Placement Assessment; or students who have taken courses with comparable content may contact the department. Taught in Hebrew. This course examines news clips, literature, music, podcasts, television and movies related to gender in modern Israeli society

0101	Aliza Sandalon	Seats (Total: 15)
	Class time/details on ELMs	ONLINE

HEBR314 **Conversation and Composition II**

Credits: 3 | Grading Method: Regular, Pass-Fail, Audit | General Education: DSHU

Prerequisite: HEBR313; or students who have taken courses with comparable content may contact the department.

A practical language course recommended for all students continuing with Hebrew. Review of grammar and composition. Selected readings. Oral and written exercises.

0101	Aliza Sandalon	Seats (Total: 20)
	Class time/details on ELMs	ONLINE

HEBR369A **Special Topics in Study Abroad III; Hebrew Lower Advanced**

Credits: 6 | Grading Method: Regular, Pass-Fail, Audit

Special topics course taken as part of an approved study abroad program.

Contact department for information to register for this course.

HEBR369B **Special Topics in Study Abroad III; Hebrew Lower Advanced**

Credits: 6 Grading Method: Regular, Pass-Fail, Audit

Special topics course taken as part of an approved study abroad program.

Contact department for information to register for this course.

HEBR369C **Special Topics in Study Abroad III; Hebrew Upper Advanced**

Credits: 6 Grading Method: Regular, Pass-Fail, Audit

Special topics course taken as part of an approved study abroad program.

Contact department for information to register for this course.

HEBR369D **Special Topics in Study Abroad III; Hebrew Upper Intermediate**

Credits: 6 Grading Method: Regular, Pass-Fail, Audit

Special topics course taken as part of an approved study abroad program.

Contact department for information to register for this course.

HEBR381 **Introduction to Hebrew Cultural Studies**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Prerequisite: HEBR314; or permission of instructor.

Critical study of Israeli culture with emphasis on literature, film, and art as sites of struggle over political and social meaning during times of cultural transformation. Focus on the historical development of Israeli identity and gender, in particular within the military and Zionist youth movements. Taught in Hebrew.

Contact department for information to register for this course.

HEBR386 **Experiential Learning**

(Perm req)

Credits: 3-6 Grading Method: Regular, Pass-Fail

Restriction: Must have a Learning Proposal approved by the Office of Experiential Learning Programs, faculty sponsor, and student's internship sponsor; and junior standing or higher.

Contact the department to obtain section numbers.

Contact department for information to register for this course.

HEBR499 **Independent Study in Hebrew**

(Perm req)

Credits: 1-3 Grading Method: Regular, Pass-Fail

Independent study under faculty supervision.

Contact the department to obtain section numbers.

Contact department for information to register for this course.

HEIP Entrepreneurship and Innovation Spring 2020

HEIP144 **Contemporary Issues in Entrepreneurship and Innovation**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Prerequisite: HEIP143. Restriction: Must be in the Entrepreneurship and Innovation Program (EIP).

Inspires entrepreneurial innovation and creativity through interactive lectures, workshops, and case studies on contemporary issues to include energy, life sciences, healthcare, and technology. Explores entrepreneurial innovation sources, structures and dynamics. Helps students develop skills for generating ideas and addressing current issues and problems.

Class meets in the LaPlata Hall - multi-purpose room.

0101	Jay Smith TuTh 11:00am - 12:15pm	Seats (Total: 30) LPA 0100
0201	Jay Smith TuTh 2:00pm - 3:15pm	Seats (Total: 30) LPA 0100
0301	Jay Smith TuTh 3:30pm - 4:45pm	Seats (Total: 30) LPA 0100

HEIP241 **EIP Capstone: Creating Enterprise with Social Impact**

Credits: 2 Grading Method: Regular, Pass-Fail, Audit

Restriction: Must be in the Entrepreneurship and Innovation Program (EIP).

Addresses the global necessity to develop and implement solutions to critical social and environmental concerns in ways that are both technologically viable and economically sustainable. Through group exercises, guest speakers, discussions, and experiential learning activities, students will develop the skills to create businesses that achieve the double bottom line of both profitability and social benefit.

0101	Jay Smith, John Jabara MW 5:00pm - 5:50pm	Seats (Total: 20) LPA 1125
0201	Jay Smith TuTh 5:00pm - 5:50pm	Seats (Total: 20) LPA 0100
0301	Jay Smith, John Jabara MW 3:00pm - 3:50pm	Seats (Total: 20) LPA 0100

HESI Higher Ed, Student Affairs, and International Ed Policy — Spring 2020

HESI217 **Introduction to Student Leadership**

Credits: 3 | Grading Method: Regular, Pass-Fail, Audit | General Education: DSSP

Restriction: Freshman standing; or sophomore standing.

Introduction to leadership theories, concepts, and skills. Completion of personal and leadership self-assessments, values exploration, and small group application.

Students must pay a $32.00 materials fee.

0101	Ashley Hixson MW 2:00pm - 3:15pm	Seats (Total: 25) ASY 3221
0201	Genevieve Hiltebrand TuTh 12:30pm - 1:45pm	Seats (Total: 25) ASY 3221
0301	Ashley Hixson MW 11:00am - 12:15pm	Seats (Total: 25) ASY 3221

HESI310 **Transfer2Terp Learning Community: Applying Your Strengths at the University of Maryland and Beyond**

Credits: 3 | Grading Method: Regular, Pass-Fail, Audit

Restriction: Priority will be given to students transferring from Maryland Community Colleges; or permission of EDUC-Counseling, Higher Education and Special Education department.

Students will identify their strengths and learn how to apply them both in and outside of the classroom. Students will work side by side with the faculty and staff in the Adele H. Stamp Student Union to learn about their strengths while applying them to leadership positions.

0101	David Reese TuTh 11:00am - 12:15pm	Seats (Total: 18) SSU 0110
0201	Denise McHugh TuTh 12:30pm - 1:45pm	Seats (Total: 18) SSU 0110

HESI315 **Student Leadership in Groups and Organizations**

(Perm req)

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Prerequisite: HESI217. Credit only granted for: HESI315 or EDCP315. Formerly: EDCP315.

Acquiring and integrating leadership knowledge within group and organizational contexts so that students can navigate organizational environments and apply leadership in diverse communities of practice and career contexts.

Students must pay a $15 materials fee. Contact leadershipstudies@umd.edu for permission to enroll.

0101	Noel Kuriakos MW 11:00am - 12:15pm	Seats (Total: 20) TWS 1321
0201	Noel Kuriakos TuTh 2:00pm - 3:15pm	Seats (Total: 20) ASY 3221

HESI318G **Applied Contextual Leadership; Greek Presidents Class**

(Perm req)

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Course will utilize experiential learning opportunities to develop and apply the knowledge and skills of leadership into specific contexts of leadership practice.

Course restricted to Fraternity and Sorority Presidents. For permission, please contact Michael Goodman at mgood@umd.edu.

0101	Michael Goodman W 3:30pm - 6:30pm	Seats (Total: 55) SQH 1117

HESI318I **Applied Contextual Leadership; Global Leadership in a Virtual Context**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Course will utilize experiential learning opportunities to develop and apply the knowledge and skills of leadership into specific contexts of leadership practice.

Most course activities will be conducted online, but students will be expected to meet in person 5-7 times out of the semester, likely on Friday evenings, to meet virtually with students and faculty at Hong Kong Polytechnic University in a virtual classroom environment. Contact leadershipstudes@umd.edu for moreinformation."

0101	Genevieve Hiltebrand	Seats (Total: 25)
	Contact instructor or department for details. Class time/details on ELMs	ONLINE

HESI318M **Applied Contextual Leadership; Leadership and Education**

(Perm req)

Credits: 3

Grading Method: Regular, Pass-Fail, Audit

Course will utilize experiential learning opportunities to develop and apply the knowledge and skills of leadership into specific contexts of leadership practice.

This course will explore public education policy in the United States, including historical context, the achievement gap, school funding, standardized testing, and alternatives to the current public education system. It will also explore the meaning of leadership in an educational context and advocacy for change within this context. All students enrolled in the course must commit six hours per week of the semester to work with the America Reads, America Counts, or Partners in Print program and must receive permission to enroll by contacting Alison Barlow at abarlow@umd.edu. Visit www.arac.umd.edu for more information about AR*AC*PNP programs.

0101	Alison Barlow	Seats (Total: 20)
	Class time/details on ELMs	ONLINE

HESI318N **Applied Contextual Leadership; Leadership in Collaborative Learning Groups**

(Perm req)

Credits: 3

Grading Method: Regular, Pass-Fail

Course will utilize experiential learning opportunities to develop and apply the knowledge and skills of leadership into specific contexts of leadership practice.

Restricted to students selected to participate in the Guided Study Session program through the Learning Assistance Service of the Counseling Center.

0101	Danielle Pafe	Seats (Total: 20)
	W 5:00pm - 6:15pm Contact instructor or department for details.	ASY 3217

0201	Danielle Pafe Th 3:30pm - 4:45pm Contact instructor or department for details.	Seats (Total: 20) ARC 1125

HESI318O **Applied Contextual Leadership; Orientation Leader**

(Perm req)

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Course will utilize experiential learning opportunities to develop and apply the knowledge and skills of leadership into specific contexts of leadership practice.

Restriction: Permission of department.

0101	Janae Cruz, Maya Dawit Tu 6:00pm - 8:30pm *Restricted to students hired to be on the 2020 Orientation Staff*	Seats (Total: 30) TWS 1320

HESI318T **Applied Contextual Leadership; Foundations and Applications of Adventure Leadership Instruction**

(Perm req)

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Course will utilize experiential learning opportunities to develop and apply the knowledge and skills of leadership into specific contexts of leadership practice.

Permission of Instructor needed. Required course to become an Adventure Trip Leader with the RecWell Adventure Program. Contact Amanda Preperato at aprep@umd.edu to schedule an interview.

0101	Amanda Preperato W 6:00pm - 9:00pm	Seats (Total: 8) ERC B0170E

HESI321 **Advanced Social Action Seminar**

(Perm req)

Credits: 1 Grading Method: Regular, Pass-Fail, Audit

Prerequisite: HESI217 and HESI320. Restriction: Limited to Minor in Leadership Studies students only.

The use of leadership theories to inform the practice of addressing social issues in society, on campus, or within the surrounding community. Students will: identify a current and compelling social issue; explore the historical, social, and political aspects of social issues; identify and select applicable leadership theories to confront the social issue; create and develop a plan that integrates leadership theories and the social issue; and implement and evaluate the overall social action project. Focuses on executing, implementing, and assessing a social action project in small groups and teams.

This is a blended course conducted primarily online with occasional face-to-face meetings (TBD once students are enrolled). Contact leadershipstudies@umd.edu for permission to enroll.

0101	William Post	Seats (Total: 15)
	Contact instructor or department for details. Class time/details on ELMs	ONLINE

HESI417 **Advanced Leadership Seminar**

(Perm req)

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Prerequisite: HESI217; or students who have taken courses with comparable content may contact the department. Restriction: Permission of EDUC-Counseling, Higher Education and Special Education department. Credit only granted for: EDCP417 or HESI417.

Students will analyze and synthesize the concept of leadership using cultural, ethical, sociological, historical perspectives. Exploration and reflection of personal values, decision making, in-depth analysis on various leadership activities. Theories will be emphasized.

Contact leadershipstudies@umd.edu for permission to enroll.

0101	Shakia Asamoah, Craig Slack	Seats (Total: 15)
	F 9:00am - 11:45am	EDU 1315

HESI418B **Special Topics in Leadership; Black Student Leadership**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit General Education: DVCC

The special topics and leadership course will address a single topic related to leadership through the semester. In-depth study and analysis on the topic will be the basis for the course. Topics include gender and leadership, ethics and leadership, and culture and leadership. Leadership will serve as the foundation in the course.

0101	Brandon Dula	Seats (Total: 20)
	TuTh 2:00pm - 3:15pm	WDS 1131

HESI418F **Special Topics in Leadership; Jewish Leadership**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit General Education: DVCC

The special topics and leadership course will address a single topic related to leadership through the semester. In-depth study and analysis on the topic will be the basis for the course. Topics include gender and leadership, ethics and leadership, and culture and leadership. Leadership will serve as the foundation in the course.

0101	Ari Israel M 2:00pm - 4:45pm	Seats (Total: 35) TYD 0102	

HESI418G **Special Topics in Leadership; Women's Leadership**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit General Education: DVCC

The special topics and leadership course will address a single topic related to leadership through the semester. In-depth study and analysis on the topic will be the basis for the course. Topics include gender and leadership, ethics and leadership, and culture and leadership. Leadership will serve as the foundation in the course.

0101	Marsha Guenzler-Stevens Tu 2:00pm - 4:45pm	Seats (Total: 20) KEY 0119	

HESI470 **Introduction to Student Personnel**

(Perm req)

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Restriction: Permission of EDUC-Counseling, Higher Education and Special Education department. Credit only granted for: EDCP470 or HESI470. Formerly: EDCP470.

A systematic analysis of research and theoretical literature on a variety of major problems in the organization and administration of student personnel services in higher education. Included will be discussion of such topics as the student personnel philosophy in education, counseling services, discipline, housing, student activities, financial aid, health, remedial services, etc.

Please contact Aaron Hood (awhood@umd.edu) to get permission.

0101	Daniel Ostick M 4:00pm - 5:15pm Tu 3:30pm - 5:00pm	Seats (Total: 9) SQH 1120 OAK 0315	 Discussion
0102	Daniel Ostick M 4:00pm - 5:15pm Tu 4:00pm - 5:30pm	Seats (Total: 9) SQH 1120 CCC 1115	 Discussion

0103	Daniel Ostick M 4:00pm - 5:15pm Tu 4:00pm - 5:30pm	Seats (Total: 9) SQH 1120 ANN 1108A	Discussion
0104	Daniel Ostick M 4:00pm - 5:15pm Tu 4:30pm - 6:00pm	Seats (Total: 9) SQH 1120 SCC 7106	Discussion
0105	Daniel Ostick M 4:00pm - 5:15pm W 3:30pm - 5:00pm	Seats (Total: 9) SQH 1120 OAK 0315	Discussion
0106	Daniel Ostick M 4:00pm - 5:15pm W 4:00pm - 5:30pm	Seats (Total: 9) SQH 1120 CCC 1200	Discussion
0107	Daniel Ostick M 4:00pm - 5:15pm W 4:30pm - 6:00pm	Seats (Total: 9) SQH 1120 ANN 1108A	Discussion
0108	Daniel Ostick M 4:00pm - 5:15pm Th 3:30pm - 5:00pm	Seats (Total: 9) SQH 1120 OAK 0315	Discussion
0109	Daniel Ostick M 4:00pm - 5:15pm Th 4:00pm - 5:30pm	Seats (Total: 9) SQH 1120 CCC 1115	Discussion
0201	Aaron Hood M 5:30pm - 6:45pm Tu 3:30pm - 5:00pm	Seats (Total: 10) SQH 1120 OAK 0315	Discussion
0202	Aaron Hood M 5:30pm - 6:45pm Tu 4:00pm - 5:30pm	Seats (Total: 10) SQH 1120 CCC 1115	Discussion
0203	Aaron Hood M 5:30pm - 6:45pm Tu 4:00pm - 5:30pm	Seats (Total: 10) SQH 1120 ANN 1108A	Discussion

0204	Aaron Hood M 5:30pm - 6:45pm Tu 4:30pm - 6:00pm	Seats (Total: 10) SQH 1120 SCC 7106	Discussion
0205	Aaron Hood M 5:30pm - 6:45pm W 3:30pm - 5:00pm	Seats (Total: 10) SQH 1120 OAK 0315	Discussion
0206	Aaron Hood M 5:30pm - 6:45pm W 4:00pm - 5:30pm	Seats (Total: 10) SQH 1120 CCC 1200	Discussion
0207	Aaron Hood M 5:30pm - 6:45pm W 4:30pm - 6:00pm	Seats (Total: 10) SQH 1120 ANN 1108A	Discussion
0208	Aaron Hood M 5:30pm - 6:45pm Th 3:30pm - 5:00pm	Seats (Total: 10) SQH 1120 OAK 0315	Discussion
0209	Aaron Hood M 5:30pm - 6:45pm Th 4:00pm - 5:30pm	Seats (Total: 10) SQH 1120 CCC 1115	Discussion
0301	Aaron Hood Contact instructor or department for details.	Seats (Total: 15)	

HESI489 **Field Experiences in Higher Education, Student Affairs, and International Education Policy**

Credits: 1-4 Grading Method: Regular, Pass-Fail, Audit

Planned field experience in education and community related activities. Credit not to be granted for experiences accrued prior to registration.

1501	Marsha Guenzler-Stevens Contact instructor or department for details.	Seats (Total: 10)	
7301	Kimberly Griffin Contact instructor or department for details.	Seats (Total: 10)	

HESI498 **Special Problems in Higher Education, Student Affairs, and International Education Policy**

Credits: 1-3

Grading Method: Regular, Pass-Fail, Audit

Available only to HESI students who have formal plans for individual study of approved problems.

Contact department for information to register for this course.

HESI655 **Organizational Dimensions of Student Affairs**

Credits: 3

Grading Method: Regular, Sat-Fail

Prerequisite: EDCP610; or permission of EDUC-Counseling, Higher Education and Special Education department. Credit only granted for: EDCP655 or HESI655. Formerly: EDCP655.

Exploration of leadership and organizational change of student affairs programs in post-secondary education.

0101	Michelle Espino Th 1:00pm - 3:45pm	Seats (Total: 20) EDU 1107

HESI771 **The College Student**

Credits: 3

Grading Method: Regular, Audit, Sat-Fail

Credit only granted for: EDCP771 or HESI771. Formerly: EDCP771.

A demographic study of the characteristics of college students as well as a study of their aspirations, values, and purposes.

0101	Candace Moore W 9:30am - 12:30pm	Seats (Total: 20) EDU 2102

HESI773 **Designing Qualitative Research in Counseling and Student Affairs Contexts**

Credits: 3

Grading Method: Regular, Audit, Sat-Fail

Credit only granted for: EDCP773 or HESI773. Formerly: EDCP773.

Introduction to philosophical and epistemological foundations, methodologies and methods associated with qualitative research designs appropriate in student affairs and counseling contexts.

0101	Bridget Kelly Th 4:00pm - 7:00pm	Seats (Total: 20) EDU 2101

0201	Kelly Slay	Seats (Total: 12)
	Th 4:00pm - 7:00pm	TWS 1313
	Priority enrollment for Student Affairs Graduate Students.	

HESP Hearing and Speech Sciences Spring 2020

HESP120 **Introduction to Linguistics**

Credits: 3 | Grading Method: Regular, Pass-Fail, Audit | CORE: SB | General Education: DSHS, DSSP

Additional information: HESP120 is required for HESP majors. HESP majors may not substitute LING200.

An introduction to the scientific study of natural language with focus on the basic concepts of phonology, syntax, semantics and pragmatics, with subsequent attention to the applied aspects of linguistic principles.

0101	Michelle Morrison	Seats (Total: 45)
	TuTh 12:30pm - 1:45pm	ARC 1103

HESP202 **Introduction to Hearing and Speech Sciences**

Credits: 3 | Grading Method: Regular, Pass-Fail, Audit

An introduction to communication sciences and disorders; a survey of the bases of normal speech, language and hearing ability, major forms of communicative disorders and their treatment.

0101	Kathleen Skinker	Seats (Total: 99)
	TuTh 9:30am - 10:45am	TWS 0320

HESP214 **Should I Buy INTO That? Comparing Media Claims with Scientific Evidence from Brain & Behavior Research**

Credits: 3 | Grading Method: Regular, Pass-Fail | General Education: DSHS, SCIS

Millions of dollars are spent each year advertising products that "make you smarter" or "learn a foreign language faster" or "increase your memory", etc. But are these statements true? Can they be backed up? Learn how to critically evaluate media claims of new discoveries in brain and behavior. Read popular-press articles, listen to podcast episodes and review commercial products that claim to be based on science. Then, learn how to find out if the claims are true.

0101	Jared Novick	Seats (Total: 45)
	TuTh 11:00am - 12:15pm	ASY 3203

HESP300 **Introduction to Psycholinguistics**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Prerequisite: Minimum grade of C- in HESP202; or permission of BSOS-Hearing & Speech Sciences department. Recommended: HESP120.

An introduction to current theories of language and an investigation of their relationship to human communication behavior. Survey of the experimental literature relating to this question.

0101	Yi Ting Huang	Seats (Total: 53)
	TuTh 9:30am - 10:45am	TYD 0102

HESP303 **Phonetic transcription**

Credits: 2 Grading Method: Regular, Pass-Fail, Audit

Prerequisite: Permission of instructor.

An introduction to broad and narrow phonetic transcription, and to physiology of speech production. The primary goal of the course is to provide knowledge about phonetics and the ability to use this knowledge in an applied setting.

PBH1	Michele Walker	Seats (Total: 40)
	Th 6:30pm - 8:10pm	TWS 1107
	Restricted to students in the Hearing and Speech Sciences In The Evening Program.	

HESP306 **Anatomy and Physiology of Speech & Hearing**

Credits: 4 Grading Method: Regular, Pass-Fail, Audit

Prerequisite: Permission of instructor.

This is a 4-credit course focusing on the biological and neurological bases of human speech production and human hearing, namely the anatomy, physiology, and neurology of the vocal/speech mechanism and the hearing mechanism.Specifically, respiration, phonation, resonance, articulation, swallowing, and hearing will be highlighted. A strong understanding of normal anatomy and physiology is essential for the successful evaluation and treatment of patients with speech, language, swallowing and hearing disorders.

PBH1	Donna Tippett, Dawn Marsiglia	Seats (Total: 40)	
	Tu 6:00pm - 8:30pm	TWS 1107	
	Class time/details on ELMs	ONLINE	Discussion

Restricted to students in the Hearing and Speech Sciences In The Evening program.

HESP311 **Anatomy, Pathology and Physiology of the Auditory System**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Prerequisite: Minimum grade of C- in HESP202; or permission of BSOS-Hearing & Speech Sciences department.

Gross anatomy of the ear and pathways for transmission of sound energy through the peripheral and central auditory system. Causes, development and effects of pathological conditions contributing to temporary or chronic hearing impairments.

0101	Sarah Sohns	Seats (Total: 50)
	TuTh 2:00pm - 3:15pm	LEF 2166

HESP386 **Experiential Learning**

(Perm req)

Credits: 1-3 Grading Method: Regular, Pass-Fail

Restriction: Junior standing or higher; and permission of BSOS-Hearing & Speech Sciences department.

Students will have the opportunity observe and/or participate in therapy activities provided by a speech-language pathologist or audiologist in this experiential learning course.

Contact department for information to register for this course.

HESP388 **Undergraduate Research Externship**

Credits: 1-3 Grading Method: Regular, Pass-Fail, Audit

Off-campus research internship with departmental affiliates at National Institutes of Health and regional universities. Contact department chairman for openings and descriptions of eligible placements.

Contact department for information to register for this course.

HESP389 **LEAP Classroom Internship**

Credits: 1-3 Grading Method: Regular, Pass-Fail

Participation in a language-based, literacy-rich preschool classroom for children with speech-language disorders. Students will learn behavior management techniques, curriculum planning and implementation, facilitation of play among children, data collection and teaching srategies.

Contact department for information to register for this course.

HESP400 **Speech and Language Development in Children**

Credits: 3

Grading Method: Regular, Pass-Fail, Audit

Prerequisite: Minimum grade of C- in HESP300; or permission of BSOS-Hearing & Speech Sciences department. Recommended: LING200 or HESP120. Restriction: Must be in Hearing and Speech Sciences program; or permission of BSOS-Hearing & Speech Sciences department.

Analysis of the normal processes of speech and language development in children.

0101	Eliza Thompson TuTh 9:30am - 10:45am	Seats (Total: 35) SQH 1121

HESP402 **Language and Phonological Disorders in Children**

Credits: 3

Grading Method: Regular, Pass-Fail, Audit

Prerequisite: Minimum grade of C- in HESP400; or permission of BSOS-Hearing & Speech Sciences department. Restriction: Must be in Hearing and Speech Sciences program.

Etiology, assessment and treatment of language and phonological disorders in children.

0101	Nan Ratner MW 2:00pm - 3:15pm	Seats (Total: 55) LEF 2166
PBH1	Karen Miranda Th 6:00pm - 8:30pm	Seats (Total: 25) TWS 0214
	Restricted to students in the Hearing and Speech Sciences In The Evenin program.	

HESP403 **Introduction to Phonetic Science**

Credits: 3

Grading Method: Regular, Pass-Fail, Audit

Prerequisite: Minimum grade of C- in HESP305; or permission of BSOS-Hearing & Speech Sciences department. Restriction: Must be in Hearing and Speech Sciences program; or permission of BSOS-Hearing & Speech Sciences department.

An introduction to physiological, acoustic and perceptual phonetics; broad and narrow phonetic transcription; current models of speech production and perception.

0101	Margaritis Fourakis	Seats (Total: 40)
	TuTh 2:00pm - 3:15pm	SQH 1117

HESP407 **Bases of Hearing Science**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Prerequisite: Minimum grade of C- in HESP311; or permission of BSOS-Hearing & Speech Sciences department. Restriction: Must be in Hearing and Speech Sciences program; or permission of BSOS-Hearing & Speech Sciences department.

Fundamentals of hearing, including the physics of sound, anatomy and physiology of peripheral and central auditory nervous system, psychophysical procedures used in measurement of auditory sensation and perception, and topics in psychological acoustics.

0101	Matthew Goupell	Seats (Total: 60)
	MW 3:30pm - 4:45pm	LEF 2166

HESP411 **Introduction to Audiology**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Prerequisite: Minimum grade of C- in HESP311; or permission of BSOS-Hearing & Speech Sciences department. Restriction: Must be in Hearing and Speech Sciences program; or permission of BSOS-Hearing & Speech Sciences department.

An introduction to the field of audiology. Evaluation and remediation of hearing handicaps.

0101	Samira Anderson	Seats (Total: 42)
	TuTh 11:00am - 12:15pm	ESJ 1309

HESP413 **Aural Rehabilitation/Habilitation**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Prerequisite: HESP411. Restriction: Sophomore standing or higher.

The fundamental aspects of aural rehabilitation therapy for both adults and children are introduced to students. Class time will consist of lectures, discussions, and hands-on activities.

0101	Eric Hoover TuTh 9:30am - 10:45am	Seats (Total: 50) VMH 1207

HESP415 **Principles and Methods in Speech-Language Pathology**

Credits: 2 Grading Method: Regular, Pass-Fail

Prerequisite: HESP400. Restriction: Must be in Hearing and Speech Sciences program.

The principles and methods required to provide treatment of speech and language disorders to children and adults. Topics include writing goals and objectives, programming,teaching strategies,session design, data collection, behavior modification and counseling.

0101	Eusabia Mont MW 10:00am - 10:50am	Seats (Total: 45) TWS 0236

HESP417 **Principles and Methods in Speech-Language Pathology and Audiology**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Prerequisite: HESP400 and HESP411; or permission of BSOS-Hearing & Speech Sciences department. Restriction: Must be in Hearing and Speech Sciences program; or permission of BSOS-Hearing & Speech Sciences department.

The principles underlying the treatment of speech, language and hearing disorders in children and adults.

PBH1	Kimberly Jenkins, Kristina Kubistal-Meeks M 6:30pm - 9:00pm	Seats (Total: 25) TWS 0205
	Restricted to students in the Hearing and Speech Sciences In The Evening Program.	

HESP418A **Clinical Practice in Speech-Language Pathology and Audiology; Audiology Option**

(Perm req)

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Supervised observation with some direct participation in clinical methods for the treatment of disorders of articulation, fluency, child and adult language; evaluation and habilitation/rehabilitation of hearing impaired children and adults.

For majors only.

0101	Christina Shields M 9:30am - 11:30am Contact instructor or department for details.	Seats (Total: 10) LEF 0104A

HESP418B **Clinical Practice in Speech-Language Pathology and Audiology; Speech Pathology Option**

(Perm req)

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Supervised observation with some direct participation in clinical methods for the treatment of disorders of articulation, fluency, child and adult language; evaluation and habilitation/rehabilitation of hearing impaired children and adults.

For majors only.

0101	Colleen Worthington Contact instructor or department for details. Contact instructor or department for details.	Seats (Total: 10)

HESP469 **Honor Thesis Research**

Credits: 1-3 Grading Method: Regular, Pass-Fail

Student will develop thesis proposal, conduct research, analyze results, develop and defend final written document.

Contact department for information to register for this course.

HESP469A **Honor Thesis Research**

Credits: 1-3 Grading Method: Regular, Pass-Fail

Student will develop thesis proposal, conduct research, analyze results, develop and defend final written document.

Contact department for information to register for this course.

HESP469B **Honor Thesis Research**

Credits: 1-3 Grading Method: Regular, Pass-Fail

Student will develop thesis proposal, conduct research, analyze results, develop and defend final written document.

Contact department for information to register for this course.

HESP498 **Seminar**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Selected topics in human communication and its disorders.

Contact department for information to register for this course.

HESP498C **Seminar; Cochlear Implants**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Selected topics in human communication and its disorders.

0101	Nicole Nguyen	Seats (Total: 20)
	W 10:00am - 12:30pm	TYD 2108

HESP498D **Seminar; Speech and Swallowing Disorders**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Selected topics in human communication and its disorders.

0101	Kathleen Skinker	Seats (Total: 10)
	TuTh 3:30pm - 4:45pm	LEF 1222

HESP499 **Independent Study; Topics in the Hearing and Speech Sciences**

(Perm req)

Credits: 1-3 Grading Method: Regular, Pass-Fail

A directed study of selected topics pertaining to human communication and its disorders.

Contact department for information to register for this course.

HESP499H **Independent Study**

Credits: 1-3 Grading Method: Regular, Pass-Fail, Audit

A directed study of selected topics pertaining to human communication and its disorders.

Contact department for information to register for this course.

HESP601 **Foundations of Scientific Inquiry**

Credits: 1 Grading Method: Regular, Sat-Fail

Restriction: Must be in Hearing and Speech Sciences: M.A. (Master's) program; or permission of Instructor. Additional information: Course meets over three semesters for the duration of the Masters of Speech-Language Pathology program.

Overview of methods of empirical research used in Communication Sciences and Disorders. The course will focus on identifying, critically analyzing, and writing about empirical research.

0101	Jan Edwards	Seats (Total: 25)
	Contact instructor or department for details.	

HESP602 **Advanced Seminar in Neurological Bases of Communication**

(Perm req)

Credits: 2 Grading Method: Regular, Audit, Sat-Fail

Prerequisite: An undergraduate course in human neuroanatomy. Restriction: Permission of BSOS-Hearing & Speech Sciences department.

An advanced discussion of the neural bases of human communication and its disorders, neuroimaging, neural plasticity and neurological evaluations, with emphasis on current developments and critical analysis.

0101	Yasmeen Shah	Seats (Total: 30)
	Th 9:00am - 10:40am	LEF 0135

HESP603 **Seminar in Cultural and Linguistic Diversity in Communication Disorders**

Credits: 1 Grading Method: Regular, Sat-Fail

Restriction: Must be in Hearing and Speech Sciences: M.A. (Master's) program; or permission of Instructor. Additional information: Course meets over four semesters for the duration of the Masters of Speech-Language Pathology program.

Overview of cultural and linguistic diversity (CLD) in general, and the impact of CLD on communication, communication disorders, and the professional practice of Speech-Language Pathology

0101	Eusabia Mont	Seats (Total: 20)
	Th 1:00pm - 2:30pm	KEY 0119

HESP611 **Cognitive Disorders in Adults**

Credits: 2 Grading Method: Regular, Audit, Sat-Fail

Prerequisite: Must have completed or be concurrently enrolled in HESP610; and must have knowledge of basic human neuroanatomy. Restriction: Must be in Hearing and Speech Sciences: M.A. (Master's) program; or permission of instructor.

Etiology, diagnosis and management of cognitive problems of adults associated with aging, brain injury and degenerative conditions.

0101	Yasmeen Shah	Seats (Total: 34)
	Meets March 23, 2020 - May 12, 2020	
	Tu 9:30am - 12:50pm	LEF 0135

HESP612 **Fluency Disorders**

(Perm req)

Credits: 2 Grading Method: Regular, Audit, Sat-Fail

Restriction: Must be in Hearing and Speech Sciences: M.A. (Master's) program; and permission of BSOS-Hearing & Speech Sciences department. Or permission of instructor.

The nature of fluency disorders. Principles, methods and procedures for the clinical management of fluency disorders in children and adults.

0101	Vivian Sisskin	Seats (Total: 34)
	Meets January 27, 2020 - March 14, 2020	
	Tu 9:30am - 12:50pm	LEF 0135

HESP620 **Speech Production Disorders Across the Lifespan**

Credits: 3 Grading Method: Regular, Audit, Sat-Fail

Restriction: Must be in Hearing and Speech Sciences: M.A. (Master's) program; or permission of instructor.

Assessment and treatment of phonological, articulatory and resonance disorders arising from various etiologies including developmental conditions, structural abnormalities, and nervous system damage.

0101	Jan Edwards, Kristin Slawson	Seats (Total: 34)
	Tu 2:00pm - 4:30pm	LEF 0135

HESP632 **Medical Audiology**

Credits: 3 Grading Method: Regular, Audit, Sat-Fail

Prerequisite: HESP311. Corequisite: HESP606.

Overview of auditory pathologies, and their assessment and management in the medical setting.

0101	Carmen Brewer, Rebecca Bieber	Seats (Total: 30)
	M 5:30pm - 8:00pm	LEF 0135

HESP636 **Geriatric Audiology**

Credits: 3 Grading Method: Regular, Sat-Fail

Prerequisite: HESP606 and HESP700. Restriction: Must be in one of the following programs (Hearing and Speech Sciences: Ph.D. (Doctoral); Clinical Audiology: Au.D. or Ph.D. (Doctoral); Hearing and Speech Sciences: M.A. (Master's)).

Research findings are presented on the physical effects of aging on the auditory periphery and central nervous system, as well as the consequences of aging on behavioral and electrophysiologic measures of auditory function. Clinical implications in the effects of physiologic and cognitive aging on auditory performance will be discussed.

0101	Sandra Gordon-Salant	Seats (Total: 20)
	Th 4:00pm - 6:45pm	LEF 0135

HESP638 **Research Practicum**

(Perm req)

Credits: 1-3 Grading Method: Sat-Fail, Audit

Analysis, synthesis and integration of knowledge related to current research or clinical issues in human communication and its related disorders.

Contact department for information to register for this course.

HESP639C **Special Topics in Hearing and Speech Sciences; Cochlear Implants**

Credits: 3 Grading Method: Regular, Audit, Sat-Fail

Intensive coverage of selected topics of current interest.

0101	Nicole Nguyen	Seats (Total: 10)
	W 10:00am - 12:30pm	TYD 2108

HESP639P **Special Topics in Hearing and Speech Sciences; Seminar in Interprofessional Collaborative Practice**

Credits: 2 Grading Method: Regular, Audit, Sat-Fail

Intensive coverage of selected topics of current interest.

Topics include: core competencies of interprofessional education & collaboraton, team work, decision making, conflict management, professional identity (SLP, Audiology, PT, OT, social work, psychologist, etc) and case studies. Note: Attendance at IPE Day at University of Maryland, Baltimore is required, typically first Wednesday in April.

0101	Yasmeen Shah	Seats (Total: 20)	
	Tu 5:00pm - 7:30pm	LEF 0104A	
	Attendance in IPE Day at the University of Maryland, Baltimore is required (April 4, 2018, noon to 5 pm)		

HESP648B **Clinical Practice in Speech; Therapeutic Procedures**

(Perm req)

Credits: 1-2 Grading Method: Regular, Audit, Sat-Fail

Supervised training in the application of clinical methods in the diagnosis and treatment of speech disorders.

2101	Vivian Sisskin	Seats (Total: 5)	
	Th 12:00pm - 12:50pm	LEF 0135	Lab
2301	Eliza Thompson	Seats (Total: 5)	
	Th 12:00pm - 12:50pm	LEF 0135	Lab
2701	Jose Ortiz	Seats (Total: 5)	
	Th 12:00pm - 12:50pm	LEF 0135	Lab
	M 9:30am - 11:50am	LEF 0135	Lab
2801	Eusabia Mont	Seats (Total: 5)	
	Th 12:00pm - 12:50pm	LEF 0135	Lab
3601	Kristin Slawson	Seats (Total: 5)	
	Th 12:00pm - 12:50pm	LEF 0135	Lab
	F 11:00am - 11:50am	LEF 0135	Lab
3701	Kathryn Dow-Burger	Seats (Total: 5)	
	Th 12:00pm - 12:50pm	LEF 0135	Lab
	W 10:00am - 10:50am	LEF 0135	Lab

HESP649A **Clinical Practice in Audiology; Diagnostic Audiology**

(Perm req)

Credits: 1-2

Grading Method: Regular, Sat-Fail

Supervised training in the application of clinical methods in the diagnosis and treatment of hearing disorders.

1101	Larissa Curry W 1:00pm - 2:50pm	Seats (Total: 6) LEF 1221
1501	Lisa Rickard W 1:00pm - 2:50pm	Seats (Total: 5) LEF 1221
2401	Christina Shields W 1:00pm - 2:50pm	Seats (Total: 3) LEF 1221
3501	Sarah Sohns W 1:00pm - 2:50pm	Seats (Total: 3) LEF 1221

HESP649B **Clinical Practice in Audiology; Aural Rehabilitation**

(Perm req)

Credits: 1-2

Grading Method: Regular, Sat-Fail

Supervised training in the application of clinical methods in the diagnosis and treatment of hearing disorders.

Contact department for information to register for this course.

HESP701 **Hearing Aids II**

(Perm req)

Credits: 3

Grading Method: Regular, Sat-Fail

Prerequisite: HESP700. Restriction: Must be in one of the following programs (Hearing and Speech Sciences: Ph.D. (Doctoral); Clinical Audiology: Au.D. or Ph.D. (Doctoral); Hearing and Speech Sciences: M.A. (Master's)) ; and permission of BSOS-Hearing & Speech Sciences department. Or permission of instructor.

Advanced issues in amplification technology, prescriptive hearing aid selection, and management of amplification systems for special populations.

0101	Eric Hoover Tu 3:30pm - 6:00pm	Seats (Total: 10) LEF 1221

HESP706 **Advanced Clinical Audiology**

Credits: 3

Grading Method: Regular, Audit, Sat-Fail

Prerequisite: HESP606; or students who have taken courses with comparable content may contact the department.

Advanced clinical and experimental methods of evaluating the peripheral and central auditory system using acoustic stimuli. Procedural considerations and interpretation of test results.

0101	Samira Anderson W 3:30pm - 6:00pm	Seats (Total: 20) LEF 0135

HESP708 **Independent Study**

(Perm req)

Credits: 1-6

Grading Method: Regular, Audit, Sat-Fail

Individual research projects under guidance of a faculty member.

Contact department for information to register for this course.

HESP724 **Research Design**

Credits: 3

Grading Method: Regular, Audit, Sat-Fail

Prerequisite: Must have completed a course in basic statistics.

Evaluations of research designs, critique of published articles and student involvement in designing experiments on assigned topics.

0101	Yi Ting Huang M 1:00pm - 3:30pm	Seats (Total: 10) LEF 0135

HESP728 **Advanced Clinical Practice in Speech; Advanced Graduate Laboratory Practicum in Speech-Language Pathology**

(Perm req)

Credits: 1-8

Grading Method: Regular, Sat-Fail

Clinical internship in selected off-campus facilities.

Contact department for information to register for this course.

HESP729 **Advanced Clinical Practice in Audiology; Advanced Graduate Laboratory Practicum in Audiology**

(Perm req)

Credits: 1-8

Grading Method: Regular, Sat-Fail

Clinical internship in selected off-campus facilities.

1301	Instructor: TBA Contact instructor or department for details. Contact instructor or department for details.	Seats (Total: 10)
3201	Nicole Nguyen Contact instructor or department for details.	Seats (Total: 25)

HESP788 **Graduate Research Externship**

Credits: 1-3 Grading Method: Regular, Audit, Sat-Fail

Off-campus research internship with departmental affiliates at National Institutes of Health and other regional universities. Contact department chairman for available placements, requirements and openings.

Contact department for information to register for this course.

HESP799 **Master's Thesis Research**

Credits: 1-6 Grading Method: Sat-Fail

Contact department for information to register for this course.

HESP829 **Clinical Internship Residency**

Credits: 1-9 Grading Method: Regular, Audit, Sat-Fail

Off-Campus, full-time (30-40 hours/week) clinical externship in Audiology at regional and national institutions.

1301	Instructor: TBA Contact instructor or department for details.	Seats (Total: 30)
3201	Nicole Nguyen Contact instructor or department for details.	Seats (Total: 5)

HESP849 **Capstone Research Project I**

Credits: 2 Grading Method: Regular, Sat-Fail

First of two-course sequence leading to the final research requirement for the Doctor of Audiology (Au.D.) degree; involves individual study and/or supervised lab work with mentor, preparation of research proposal (including IRB protocol if required), and attendance at Capstone Research Project Workshop.

Contact department for information to register for this course.

HESP859 **Capstone Research Project II**

Credits: 1-2 Grading Method: Regular, Sat-Fail

Second of two-course sequence leading to the final research requirement for the Doctor of Audiology (Au.D.) degree; involves final data collection, analysis and presentation of results or completion of scholarly paper under the direction of the faculty mentor.

Contact department for information to register for this course.

HESP889 **Doctoral Candidacy Research**

Credits: 1-3 Grading Method: Regular, Sat-Fail

Doctoral candidacy paper research

Contact department for information to register for this course.

HESP898 **Pre-Candidacy Research**

Credits: 1-8 Grading Method: Regular, Sat-Fail

Contact department for information to register for this course.

HESP899 **Doctoral Dissertation Research**

(Perm req)

Credits: 6 Grading Method: Sat-Fail

Contact department for information to register for this course.

HHUM Honors Humanities Spring 2020

HHUM106 **Honors Humanities: The Humanities in Practice**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit CORE: HA General Education: DSHU, DSSP

Recommended: HHUM105. Restriction: Must be in the Honors Humanities Program. Additional information: Priority enrollment will be given to students in Honors Humanities.

The application of the disciplines, methods and traditions of the Humanities to contemporary problems and issues such as social injustice, immigration, income inequality, and the role of social media. Students will apply to such issues the tools of the Humanities: research and historical analysis, critical reasoning, communication and persuasion, ethical debate, and imagination. The course will utilize the institutions of Washington, D.C. to explore contemporary problems and will guide students in the creation of their individual proposals for the capstone project that is the culmination of the curriculum in Honors Humanities.

0101	Sarah Humud Tu 3:30pm - 4:45pm Th 3:30pm - 4:45pm	Seats (Total: 19) ESJ 2212 ANA 0103	Discussion
0102	Sarah Humud Tu 3:30pm - 4:45pm Th 3:30pm - 4:45pm	Seats (Total: 19) ESJ 2212 JMZ 3120	Discussion
0103	Sarah Humud Tu 3:30pm - 4:45pm Th 2:00pm - 3:15pm	Seats (Total: 19) ESJ 2212 ANA 0103	Discussion
0104	Sarah Humud Tu 3:30pm - 4:45pm Th 12:30pm - 1:45pm	Seats (Total: 19) ESJ 2212 ANA 0120	Discussion

HHUM206 **Honors Humanities Keystone Project**

Credits: 3 | Grading Method: Regular, Pass-Fail, Audit | General Education: DSSP

Design, execution and completion of students' chosen Keystone Projects in the form of research, creativity, or service. Students will have formulated tentative plans for their projects in HHUM106; in this course they will revise and augment those proposals, articulate their connections with the traditions and methods of the humanities, formulate a work plan for completing the project within one semester, and work with their fellow students to workshop their materials as they develop. The course will culminate in a presentation of the project at the annual Keystone Symposium and with the submission of the project in its final form.

0101	Gregory Staley, Sarah Humud M 5:00pm - 6:15pm W 11:00am - 12:15pm	Seats (Total: 12) TWS 1310 ANA 0120	Discussion
0102	Gregory Staley, Sarah Humud M 5:00pm - 6:15pm W 12:30pm - 1:45pm	Seats (Total: 12) TWS 1310 ANA 0120	Discussion

0103	Gregory Staley, Sarah Humud M 5:00pm - 6:15pm W 2:00pm - 3:15pm	Seats (Total: 12) TWS 1310 ANA 0103	Discussion
0104	Gregory Staley, Sarah Humud M 5:00pm - 6:15pm W 3:30pm - 4:45pm	Seats (Total: 12) TWS 1310 ANA 0103	Discussion
0105	Gregory Staley, Sarah Humud M 5:00pm - 6:15pm W 5:00pm - 6:15pm	Seats (Total: 15) TWS 1310 ANA 0120	Discussion

HHUM328 **Internship in Honors Humanities**

Credits: 1-3 Grading Method: Regular, Pass-Fail, Audit

Supervised service-learning in Honors Humanities.

0101	Sarah Humud Contact instructor or department for details.	Seats (Total: 20)

HHUM329 **Undergraduate Teaching Assistantship**

Credits: 1-3 Grading Method: Regular, Pass-Fail, Audit

Supervised pedagogical service-learning in the Honors Humanities curriculum.

0101	Gregory Staley Contact instructor or department for details.	Seats (Total: 5)

HISP Historic Preservation Spring 2020

HISP200 **The Everyday and the American Environment**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit CORE: HO, D General Education: DSHU, DVUP, SCIS

Jointly offered with HISP615.

An introduction to the theories of the everyday within the context of the American built environment. Focuses primarily on the American experience of underrepresented, minority, and/or immigrant communities; both historical and contemporary. Attempts to challenge what is meant by American in describing the American everyday built environment.

0101	Paula Nasta Th 3:30pm - 4:45pm Tu 12:30pm - 1:45pm	Seats (Total: 19) ASY 2203 ARC 1125	Discussion
0102	Paula Nasta Th 3:30pm - 4:45pm Tu 12:30pm - 1:45pm	Seats (Total: 24) ASY 2203 JMZ 0120	Discussion
0103	Paula Nasta Th 3:30pm - 4:45pm Tu 2:00pm - 3:15pm	Seats (Total: 24) ASY 2203 EDU 3233	Discussion
0104	Paula Nasta Th 3:30pm - 4:45pm Tu 2:00pm - 3:15pm	Seats (Total: 24) ASY 2203 JMZ 1120	Discussion
0105	Paula Nasta Th 3:30pm - 4:45pm Tu 2:00pm - 3:15pm	Seats (Total: 19) ASY 2203 ARC 1125	Discussion

HISP619L **Special Topics in Historic Preservation; Vernacular Architecture Lab**

(Perm req)

Credits: 1-6 Grading Method: Regular, Audit, Sat-Fail

Technical aspects of preservation taught by practitioners whose expertise are of special benefit to certificate students.

0101	Dennis Pogue Contact instructor or department for details.	Seats (Total: 10)

HISP619M **Special Topics in Historic Preservation; Management and Practice**

(Perm req)

Credits: 2 Grading Method: Regular, Audit, Sat-Fail

Technical aspects of preservation taught by practitioners whose expertise are of special benefit to certificate students.

0101	John Sprinkle M 4:00pm - 6:00pm	Seats (Total: 15) Location: TBA

HISP619N **Special Topics in Historic Preservation; Partnership for Action Learning in Sustainability Program**

(Perm req)

Credits: 1-6

Grading Method: Regular, Audit, Sat-Fail

Technical aspects of preservation taught by practitioners whose expertise are of special benefit to certificate students.

Restriction: Permission of department.

0101	Instructor: TBA	Seats (Total: 10)
	Contact instructor or department for details.	

HISP619O **Special Topics in Historic Preservation; Three-Dimensional Digital Documentation: Using Laser-based Measurement Systems**

(Perm req)

Credits: 3

Grading Method: Regular, Audit, Sat-Fail

Technical aspects of preservation taught by practitioners whose expertise are of special benefit to certificate students.

Cross-listed with ARCH478O, ARCH678O, ANTH448R, and ANTH632. Credit only granted for: ARCH478O, ARCH678O, ANTH448R, ANTH632 or HISP619O. This course focuses on the fundamentals of documenting components of the built environment and the landscapes in which they are located. It focuses on the use of lasers to calculate 3-D measurements at various scales, from objects, to buildings, and landscapes. It will cover data management and archiving, field documentation processes, and post-processing of scan point clouds. This includes the production of deliverables for clients or project partners, such as plans, elevations, orthoimagery, and cleaned exported point clouds in formats that are compatible with Autodesk software and other CAD or rendering software platforms. This course is intended for students working in fields that rely on accurately documenting components of the built environment in three dimension, including architects, engineers, preservationists, archaeologists, or digital designers.

0101	Stefan Woehlke	Seats (Total: 15)
	W 2:00pm - 4:40pm	ARC 1115

HISP629 **Independent Studies in Historic Preservation**

Credits: 1-3

Grading Method: Regular, Audit, Sat-Fail

Individual Instruction course.

0101	Dennis Pogue	Seats (Total: 5)
	Contact instructor or department for details.	

HISP630 **Preservation Policy and Planning**

(Perm req)

Credits: 3

Grading Method: Regular, Audit, Sat-Fail

Prerequisite: Permission of ARCH-Historic Preservation Program. Credit only granted for: HISP619M or HISP630. Formerly: HISP619M.

An opportunity is provided to look in depth at the national historic preservation program that is the federal, tribal, state, and local (city and county) public sector preservation activities being undertaken in accordance with public policy set by laws, regulations, standards, and guidelines.

0101	Jeremy Wells	Seats (Total: 15)
	W 7:00pm - 9:40pm	ARC 1117

HISP635 **Social and Ethnic Issues in Historic Preservation Practice**

(Perm req)

Credits: 3

Grading Method: Regular, Audit, Sat-Fail

Prerequisite: Permission of ARCH-Historic Preservation Program. Credit only granted for: HISP628E or HISP635. Formerly: HISP628E.

This seminar course examines the broader social and ethnic dimensions of historic preservation practice that have impacted the field since the "culture wars" of the 1990's. Through weekly case studies of local, international sites, students will explore these issues and apply newly emerging methodologies to their final case study project.

0101	Jeremy Wells, Dennis Pogue	Seats (Total: 10)
	Th 7:00pm - 9:40pm	ARC 1117

HISP640 **Historic Preservation Law, Advocacy and Public Policy**

(Perm req)

Credits: 3

Grading Method: Regular, Audit, Sat-Fail

Prerequisite: Permission of ARCH-Historic Preservation Program. Credit only granted for: HISP619C or HISP640. Formerly: HISP619C.

Introduce students to legal, advocacy, and public policy issues in the field of historic preservation. Student activities will be designed to teach basic working knowledge of relevant legal subjects, including historic preservation ordinances, state and federal preservation statutes, and important constitutional issues.

0101	Frederick Stachura, Dennis Pogue	Seats (Total: 15)
	M 7:00pm - 9:40pm	ARC 1125

HISP645 **Archaeology and Preservation**

(Perm req)

Credits: 3

Grading Method: Regular,
Audit, Sat-Fail

Prerequisite: Permission of ARCH-Historic Preservation Program. Credit only granted for: HISP619A or HISP645. Formerly: HISP619A.

An introduction to issues related to archaeological resources and preservation. Topics will include method and theory in American archaeology, archaeology in support of architectural history, archaeology and the NHPA, archaeological site preservation and conservation, and curation and collections management. Students will have a chance to work at an archaeological site to experience field excavation techniques and challenges, and will visit other archaeological sites and curation facilities in the area.

0101	Donald Linebaugh Th 4:00pm - 6:40pm	Seats (Total: 15) Location: TBA

HISP660 **Internship in Historic Preservation**

(Perm req)

Credits: 3

Grading Method: Regular,
Audit, Sat-Fail

Prerequisite: Permission of ARCH-Historic Preservation Program. Formerly: HISP619.

Students will secure a summer internship with an organization engaged in historic preservation work (this can be a public agency, nonprofit, or private firm). The students will formulate a plan of work and a series of pedagogical goals to satisfy both the practical needs of the project and the academic requirements for the course.

0101	Dennis Pogue Contact instructor or department for details.	Seats (Total: 15)

HISP670 **Conservation of Historic Places: Historic Materials, Building Systems, and Conservation**

(Perm req)

Credits: 3

Grading Method: Regular,
Audit, Sat-Fail

Prerequisite: Permission of ARCH-Historic Preservation Program. Credit only granted for: HISP619T or HISP670. Formerly: HISP619T.

Introduces students to the analysis of historic buildings, building systems and materials. The overall emphasis is on assessing the condition of a building and its parts, and formulating a preservation strategy based on it. Conservation methods will be discussed through the introduction of philosophies and specific techniques.

0101	David Overholt Tu 7:00pm - 9:40pm	Seats (Total: 15) ARC 1117

HISP701 **Certificate Portfolio Project**

(Perm req)

Credits: 1 Grading Method: Regular, Audit, Sat-Fail

Prerequisite: Permission of ARCH-Historic Preservation Program.

Students will gather samples of their work and craft a synthetic statement on their experiences in their HISP certificate courses (for example, picking up on themes such as community involvement, diversity of practice, affordable housing, or sustainability), and the ways in which they have integrated historic preservation into their thinking and practice in their home discipline.

0101	Dennis Pogue	Seats (Total: 5)
	Contact instructor or department for details.	

HISP710 **Final Project in Historic Preservation I**

(Perm req)

Credits: 1 Grading Method: Regular, Audit, Sat-Fail

Credit only granted for: HISP700 or HISP710. Formerly: HISP700.

An independent, applied research project investigating the preservation of a particular site or a specialized issue in historic preservation. This is part one of a two-semester sequence and involves developing the project proposal and bibliography.

0101	Dennis Pogue	Seats (Total: 15)
	Contact instructor or department for details.	

HISP711 **Final Project in Historic Preservation II**

(Perm req)

Credits: 2 Grading Method: Regular, Audit, Sat-Fail

Credit only granted for: HISP700 or HISP711. Formerly: HISP700.

An independent, applied research project invesitgating the preservation of a particular site or a specialized issue in historic preservation. This is part two of a two semester sequence and involves project research and writing.

0101	Dennis Pogue	Seats (Total: 15)
	Contact instructor or department for details.	

HIST History Spring 2020

HIST108A **Freshman/Sophomore Seminar in History; Incarceration Nation**

Credits: 3 | Grading Method: Regular, Pass-Fail | General Education: DSHS

America leads the world in jailing its own citizens and there are now more than two million Americans behind bars. How did it come to this? This course examines America s long history of incarceration, with a particular focus on the period from the Revolution to the Civil War.

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0101	Richard Bell TuTh 2:00pm - 3:15pm	Seats (Total: 20) TLF 2103	

HIST108B **Freshman/Sophomore Seminar in History; Gandhi: The Individual in History**

Credits: 3 | Grading Method: Regular, Pass-Fail | General Education: DSHS

Uses the life and legacy of Mohandas K. Gandhi, in modern India and beyond, as a starting point to explore the relationship between individuals in world history and the social contexts that produced them. Topics include non-violence, diet, sexuality, politics, law, technology, the environment, and representations in film and other media.

Uses the life and legacy of Mohandas K. Gandhi, in modern India and beyond, as a starting point to explore the relationship between individuals in world history and the social contexts that produced them. Topics include non-violence, diet, sexuality, politics, law, technology, the environment, and representations in film and other media.

0101	Mircea Raianu TuTh 12:30pm - 1:45pm	Seats (Total: 15) TLF 2103	

HIST110 **The Ancient World**

Credits: 3 | Grading Method: Regular, Pass-Fail, Audit | CORE: HO | General Education: DSHU

Interpretation of select literature and art of the ancient Mediterranean world with a view to illuminating the antecedents of modern culture; religion and myth in the ancient Near East; Greek philosophical, scientific, and literary invention; and the Roman tradition in politics and administration.

0101	Elizabeth Conner TuTh 12:30pm - 1:20pm F 11:00am - 11:50am	Seats (Total: 24) TYD 2106 KEY 0100	 Discussion

0102	Elizabeth Conner TuTh 12:30pm - 1:20pm F 1:00pm - 1:50pm	Seats (Total: 24) TYD 2106 KEY 0100	Discussion
0103	Elizabeth Conner TuTh 12:30pm - 1:20pm F 2:00pm - 2:50pm	Seats (Total: 24) TYD 2106 KEY 0100	Discussion

HIST111 **The Medieval World**

Credits: 3 | Grading Method: Regular, Pass-Fail, Audit | CORE: SH | General Education: DSHS, DVUP

The development of Europe in the Middle Ages; the role of religious values in shaping new social, economic, and political institutions; medieval literature, art and architecture.

0101	Colleen Ho TuTh 11:00am - 11:50am Th 12:30pm - 1:20pm	Seats (Total: 24) KEY 0106 SQH 1123	Discussion
0102	Colleen Ho TuTh 11:00am - 11:50am F 11:00am - 11:50am	Seats (Total: 24) KEY 0106 TLF 1101	Discussion
0103	Colleen Ho TuTh 11:00am - 11:50am F 12:00pm - 12:50pm	Seats (Total: 24) KEY 0106 TLF 1101	Discussion

HIST113 **The Making of Modern Europe**

Credits: 3 | Grading Method: Regular, Pass-Fail, Audit | CORE: SH | General Education: DSHS

Evolution of modern nation states since late medieval times. Industrial-economic structure and demography. Emergence of modern secular society.

0101	Piotr H Kosicki Class time/details on ELMs	Seats (Total: 40) ONLINE	

HIST142 **Looking at America through a Global Lens**

Credits: 3 | Grading Method: Regular, Pass-Fail, Audit | CORE: SH | General Education: DSHS, SCIS

Credit only granted for: HIST289I or HIST142. Formerly: HIST289I.

Looking at America will focus on a thematic approach to the study of foreign -- negative and positive -- perceptions of America in the 20th century.

0101	Saverio Giovacchini MW 1:00pm - 1:50pm F 10:00am - 10:50am	Seats (Total: 24) KEY 0106 KEY 0126	Discussion
0102	Saverio Giovacchini MW 1:00pm - 1:50pm F 11:00am - 11:50am	Seats (Total: 24) KEY 0106 KEY 0126	Discussion
0103	Saverio Giovacchini MW 1:00pm - 1:50pm F 1:00pm - 1:50pm	Seats (Total: 24) KEY 0106 KEY 0126	Discussion

HIST200 **Interpreting American History: Beginnings to 1877**

Credits: 3 | Grading Method: Regular, Pass-Fail, Audit | CORE: SH | General Education: DSHS, DSHU

Credit only granted for: HIST156 or HIST200. Formerly: HIST156.

The United States from colonial times to the end of the Civil War. Establishment and development of American institutions.

0101	Christopher Bonner MW 10:00am - 10:50am F 9:00am - 9:50am	Seats (Total: 24) KEY 0106 TLF 1101	Discussion
0102	Christopher Bonner MW 10:00am - 10:50am F 10:00am - 10:50am	Seats (Total: 24) KEY 0106 TLF 1101	Discussion
0103	Christopher Bonner MW 10:00am - 10:50am F 12:00pm - 12:50pm	Seats (Total: 24) KEY 0106 KEY 1117	Discussion

HIST201 **Interpreting American History: From 1865 to the Present**

Credits: 3 | Grading Method: Regular, Pass-Fail, Audit | CORE: SH | General Education: DSHS, DSHU, DVUP

Credit only granted for: HIST157 or HIST201. Formerly: HIST157.

The United States from the end of the Civil War to the present. Economic, social, intellectual, and political developments. Rise of industry and emergence of the United States as a world power.

0101	Howard Smead MW 12:00pm - 12:50pm M 9:00am - 9:50am	Seats (Total: 24) KEY 0106 KEY 0100	 Discussion
0102	Howard Smead MW 12:00pm - 12:50pm M 10:00am - 10:50am	Seats (Total: 24) KEY 0106 KEY 0100	 Discussion
0103	Howard Smead MW 12:00pm - 12:50pm M 1:00pm - 1:50pm	Seats (Total: 24) KEY 0106 KEY 0100	 Discussion
0104	Howard Smead MW 12:00pm - 12:50pm W 9:00am - 9:50am	Seats (Total: 24) KEY 0106 TLF 1101	 Discussion
0105	Howard Smead MW 12:00pm - 12:50pm W 10:00am - 10:50am	Seats (Total: 24) KEY 0106 TLF 1101	 Discussion
0106	Howard Smead MW 12:00pm - 12:50pm W 1:00pm - 1:50pm	Seats (Total: 24) KEY 0106 TLF 1101	 Discussion
0107	Howard Smead MW 12:00pm - 12:50pm F 9:00am - 9:50am	Seats (Total: 24) KEY 0106 KEY 0100	 Discussion
0108	Howard Smead MW 12:00pm - 12:50pm F 10:00am - 10:50am	Seats (Total: 24) KEY 0106 KEY 0100	 Discussion
0109	Howard Smead MW 12:00pm - 12:50pm F 12:00pm - 12:50pm	Seats (Total: 24) KEY 0106 KEY 0100	 Discussion

0201	Robert Chiles TuTh 12:30pm - 1:20pm Th 9:30am - 10:20am	Seats (Total: 24) KEY 0106 ATL 0201	Discussion
0202	Robert Chiles TuTh 12:30pm - 1:20pm Th 11:00am - 11:50am	Seats (Total: 24) KEY 0106 VMH 1107	Discussion
0203	Robert Chiles TuTh 12:30pm - 1:20pm Th 2:00pm - 2:50pm	Seats (Total: 24) KEY 0106 LEF 0135	Discussion
0204	Robert Chiles TuTh 12:30pm - 1:20pm F 9:00am - 9:50am	Seats (Total: 24) KEY 0106 TLF 1103	Discussion
0205	Robert Chiles TuTh 12:30pm - 1:20pm F 10:00am - 10:50am	Seats (Total: 24) KEY 0106 TLF 1103	Discussion
0206	Robert Chiles TuTh 12:30pm - 1:20pm F 12:00pm - 12:50pm	Seats (Total: 24) KEY 0106 TLF 1103	Discussion
0207	Robert Chiles TuTh 12:30pm - 1:20pm Th 9:30am - 10:20am	Seats (Total: 24) KEY 0106 KEY 0100	Discussion
0208	Robert Chiles TuTh 12:30pm - 1:20pm F 9:00am - 9:50am	Seats (Total: 24) KEY 0106 KEY 0125	Discussion
0209	Robert Chiles TuTh 12:30pm - 1:20pm F 12:00pm - 12:50pm	Seats (Total: 24) KEY 0106 SKN 1112	Discussion

HIST208A **Historical Research and Methods Seminar; The History of Religion--Faith, Myth, and Society**

(Perm req)

Credits: 3 Grading Method: Regular, Pass-Fail

Reading and research skills and methods. Research papers will be based on the topic of the seminar.

0101	Thomas Messersmith Tu 11:00am - 12:50pm Contact instructor or department for details.	Seats (Total: 12) KEY 0107
0201	Thomas Messersmith Tu 2:00pm - 3:50pm Contact instructor or department for details.	Seats (Total: 12) KEY 0107

HIST208B **Historical Research and Methods Seminar; "How to Rule the World": Political Theory and Governance in the Ancient Mediterranean**

(Perm req)

Credits: 3 Grading Method: Regular, Pass-Fail

Reading and research skills and methods. Research papers will be based on the topic of the seminar.

0101	Dustin Cranford W 10:00am - 11:50am Contact instructor or department for details.	Seats (Total: 12) KEY 0107
0201	Dustin Cranford W 1:00pm - 2:50pm Contact instructor or department for details.	Seats (Total: 12) KEY 0107

HIST208C **Historical Research and Methods Seminar; Sex, Race, Money, an the Law: Law's Influence on 20th Century America**

(Perm req)

Credits: 3 Grading Method: Regular, Pass-Fail

Reading and research skills and methods. Research papers will be based on the topic of the seminar.

0101	Brian Sarginger Th 11:00am - 12:50pm Contact instructor or department for details.	Seats (Total: 12) TLF 2100
0201	Brian Sarginger Th 2:00pm - 3:50pm Contact instructor or department for details.	Seats (Total: 12) KEY 0117

HIST211 **Love, Labor, and Citizenship: History of American Women Since 1880**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit CORE: SH, D General Education: DSHS, DVUP

Cross-listed with WMST211. Credit only granted for: HIST211 or WMST211.

An examination of women's changing roles in working class and middle class families, the effects of industrialization on women's economic activities and status, and women's involvement in political and social struggles including those for women's rights, birth control, and civil rights.

0101	Katarina Keane TuTh 11:00am - 11:50am W 10:00am - 10:50am	Seats (Total: 24) SQH 1120 KEY 0100	Discussion
0102	Katarina Keane TuTh 11:00am - 11:50am W 11:00am - 11:50am	Seats (Total: 24) SQH 1120 KEY 0100	Discussion
0103	Katarina Keane TuTh 11:00am - 11:50am W 1:00pm - 1:50pm	Seats (Total: 24) SQH 1120 KEY 0100	Discussion

HIST219I **Religions of the Ancient Near East**

Credits: 3 | Grading Method: Regular, Pass-Fail, Audit | CORE: SH, D | General Education: DSHU

Cross-listed with: JWST225, RELS219A. Credit only granted for: JWST225, HIST219I, or RELS219A.

Introduction to ancient Near Eastern religious systems and mythology, from the third millennium BCE through the fourth century BCE. Particular emphasis on Mesopotamia and ancient Israel.

0101	Matthew Suriano TuTh 11:00am - 12:15pm	Seats (Total: 40) PLS 1119

HIST219K **Special Topics in History; London and British Empire, 1500-1850**

Credits: 3 | Grading Method: Regular, Pass-Fail, Audit

Contact department for information to register for this course.

HIST219P **Special Topics in History; World History 3500BCE to 1300AD**

Credits: 3 | Grading Method: Regular, Pass-Fail, Audit

What is the story of humanity? How did humans learn to grow food, build cities, govern states, and coexist? This course covers world history from the earliest states until the Mongol invasions of the 13th century. Themes include religion, hierarchy, trade, global geography, technological innovation, climate, culture, and language.

0101	Ali Karamustafa MWF 9:00am - 9:50am	Seats (Total: 40) KEY 0103

HIST221 **Asian American History**

Credits: 3 | Grading Method: Regular, Pass-Fail, Audit | CORE: SH, D | General Education: DSHS, DVUP

Cross-listed with AAST201. Credit only granted for: AAST201 or HIST221.

Introduction to the history of Asian Americans in the United States and the Americas and to the field of Asian American Studies, from an interdisciplinary perspective. Topics include theories of race and ethnicity; Asian migration and diaspora to the Americas; Asian American work and labor issues; gender, family, and communities; nationalism and nativism, and anti-Asian movements; Asian Americans in World War II, the Cold War, and the issues in the civil rights & post-civil rights era.

0101	Terry Park TuTh 11:00am - 12:15pm	Seats (Total: 60) SQH 1119

HIST222 **Immigration and Ethnicity in America**

Credits: 3 | Grading Method: Regular, Pass-Fail, Audit | CORE: SH, D | General Education: DSHS, DVUP

Credit only granted for: AAST222 or HIST222.

The history of immigration and the development of diverse populations i the United States are examined. Topics include related political controversies, the social experiences of immigrants, ethnicity, generations, migration, inter-group relations, race, and diversity in American culture.

0101	Robert Chiles TuTh 3:30pm - 4:45pm	Seats (Total: 40) KEY 0103

HIST225 **Modern Military History, 1815-Present**

Credits: 3 | Grading Method: Regular, Pass-Fail, Audit | CORE: SH | General Education: DSHS

The military history of Europe through an examination of the economic, financial, strategic, tactical, and technological aspects of the development of military institutions and warfare from the Congress of Vienna in 1815 to the present.

0101	Patrick Chung TuTh 9:30am - 10:45am	Seats (Total: 40) ESJ 1309

HIST233 **Empire! The British Imperial Experience 1558-1997**

Credits: 3	Grading Method: Regular, Pass-Fail, Audit	CORE: SH, D	General Education: DSHS, DVUP

Credit only granted for: HIST219P or HIST233. Formerly: HIST219P.

Britain's empire from the mid-sixteenth century to the late twentieth century, focusing on the encounter between Britain and indigenous peoples. Topics include the origins of British imperialism in Ireland and North America, the slave trade, the East India Company and India, women in empire, transportation and the making of Australia, sex in empire, missionaries, racial theories, and decolonization.

0101	Anne Rush	Seats (Total: 40)
	TuTh 11:00am - 12:15pm	SQH 1103

HIST235 **Divorced, Beheaded, Deposed: England and Britain 1485-1689**

Credits: 3	Grading Method: Regular, Pass-Fail, Audit	CORE: SH	General Education: DSHS

British history from the War of the Roses to the Hanoverian succession; Yorkist and Tudor society and politics; the Renaissance and Reformation in England, Henry VIII through Elizabeth I; 17th-century crises and revolutions; intellectual and cultural changes; the beginnings of empire; the achievement of political and intellectual order.

0101	Sabrina Baron	Seats (Total: 40)
	TuTh 9:30am - 10:45am	KEY 0103

HIST237 **Russian Civilization**

Credits: 3	Grading Method: Regular, Pass-Fail, Audit	CORE: SH, D	General Education: DSHS

An overview of Russian history stressing the main lines of development of the Russian state and the evolution of Russian culture to the present day.

0101	Mikhail Dolbilov	Seats (Total: 40)
	TuTh 11:00am - 12:15pm	KEY 0116

HIST245 **Reformers, Radicals, and Revolutionaries: The Middle East in the Twentieth Century**

Credits: 3	Grading Method: Regular, Pass-Fail, Audit	General Education: DSHS

Credit only granted for: HIST219W or HIST245. Formerly: HIST219W.

The 20th century was a period of dramatic changes in the Middle East. Within the global context of the two World Wars and the Cold War, countries in the region struggled with the effects of colonialism and painful processes of decolonization. The course offers a thematic-comparative approach to issues such as social and political reform, nationalism, the colonial experience, independence struggles, models of governance, political violence, and Islamism. Course lectures and the analysis and discussion of primary sources will lead students to understand that the peoples of the Middle East found answers to the challenges posed by Western dominance based on their specific historical, cultural and socio-economic circumstances.

For Spring 2020; Cross-listed with ARAB298K and RELS219K. Credit granted for HIST245, ARAB298K, or RELS219K.

0101	Peter Wien TuTh 11:00am - 12:15pm	Seats (Total: 36) AJC 2119

HIST251 **Latin America Since Independence**

Credits: 3	Grading Method: Regular, Pass-Fail, Audit	CORE: SH, D	General Education: DSHS, DVUP

Cross-listed with HIST251. Credit only granted for: HIST251 or LASC251.

Introductory survey of the history of Latin America from the era of independence (c. 1810-1825) through the early 1980s. Major themes include independence and sovereignty, postcolonialism and neocolonialism, nation- and state-building, liberalism, citizenship, economic development and modernization, social organization and stratification, race and ethnicity, gender relations, identity politics, reform and revolution, authoritarianism and democratization, and inter-American relations.

Cross-listed with LASC251. Credit granted for HIST251 or LASC251.

0101	Karin Rosemblatt MW 2:00pm - 3:15pm	Seats (Total: 40) TYD 1118

HIST255 **African-American History, 1865 - Present**

Credits: 3	Grading Method: Regular, Pass-Fail, Audit	CORE: SH, D	General Education: DSHS

An introductory course in the African-American experience in the United States from 1865 to the present. Topics include the aftermath of the Civil War on US race relations, the rise of segregation, northern migration, World War I and II, Civil Rights Movements, and the Black Power Movement.

Cross-listed with AASP298A. Credit only granted for HIST255 or AASP298A.

0101	Quincy Mills TuTh 9:30am - 10:45am	Seats (Total: 35) KEY 1117

HIST269D **Special Topics in Study Abroad II; Barcelona: The City and Its History**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Special topics course taken as part of an approved study abroad program.

Contact department for information to register for this course.

HIST269K **Special Topics in Study Abroad II; Mediterranean Culture and History**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Special topics course taken as part of an approved study abroad program.

Contact department for information to register for this course.

HIST269M **Special Topics in Study Abroad II; History of Modern Italy**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Special topics course taken as part of an approved study abroad program.

Contact department for information to register for this course.

HIST269O **Special Topics in Study Abroad II**

Credits: 1-6 Grading Method: Regular, Pass-Fail, Audit

Special topics course taken as part of an approved study abroad program.

Contact department for information to register for this course.

HIST269Y **Special Topics in Study Abroad II; Rome Republic & Empire**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Special topics course taken as part of an approved study abroad program.

Contact department for information to register for this course.

HIST281 **Inventing Traditions: The Making of Rabbinic Judaism**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit CORE: SH, D General Education: DSHS, DSHU, SCIS

Cross-listed with: JWST230, RELS219C. Credit only granted for: HIST281 or JWST230.

Introduces the dramatic literary and cultural (as well as political and demographic) innovations that reshaped Judaism in late antiquity. Examines the fundamental works and genres of rabbinic literature and the religious movement that produced them. Special emphasis on the rabbinic uses of "tradition" to enhance authority and legitimacy, and to foster group identity.

Additional Note: For Spring 2020; Cross-listed with JWST230 and RELS219C . Credit only granted for HIST281, JWST230, or RELS219C.

0101	Hayim Lapin	Seats (Total: 20)	
	TuTh 9:30am - 10:20am Class time/details on ELMs	TLF 2108 ONLINE	Discussion

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HIST283 **History of the Jewish People II**

Credits: 3	Grading Method: Regular, Pass-Fail, Audit	CORE: SH, D	General Education: DSHS, DVUP

Credit only granted for: HIST283, HIST283H, JWST235, or JWST235H.

Political, economic, social, and cultural development within Jewish history from the end of Middle Ages to the present. Special attention to twentieth-century developments including the Nazi holocaust and its aftermath, the Zionist movement and the creation of the State of Israel; rise of the contemporary American Jewish community.

0101	Rachel Manekin	Seats (Total: 30)
	Tu 3:30pm - 6:00pm	SQH 2120

HIST289A **Jews, Christians, and Muslims in Medieval Spain: Tolerance, Oppression, and the Problematic Past**

Credits: 3	Grading Method: Regular, Pass-Fail, Audit	General Education: DSHS, DVUP, SCIS

Cross-listed with: RELS289C. Credit only granted for: HIST289A or RELS289C.

For 800 years, medieval Spain was home to one of the most religiously diverse societies in European history. Despite frequent hostilities, the interactions of Spanish Jews, Christians, and Muslims produced a flowering of science, theology, and literature in an often remarkably tolerant climate. Students will learn how medieval Spanish people themselves experienced interreligious contact and conflict. They will also discover the modern pressures, prejudices, and ideals that have shaped historians interpretations of medieval Spain.

Cross-listed with RELS289C. Credit only granted for HIST289A or RELS289C. For 800 years, medieval Spain was home to one of the most religiously diverse societies in European history. Despite frequent hostilities, the interactions of Spanish Jews, Christians, and Muslims produced a flowering of science, theology, and literature in an often remarkably tolerant climate. Students will learn how medieval Spanish people themselves experienced interreligious contact and conflict. They will also discover the modern pressures, prejudices, and ideals that have shaped historians interpretations of medieval Spain.

0101	Janna Bianchini MW 11:00am - 11:50am M 12:00pm - 12:50pm	Seats (Total: 24) SYM 0200 KEY 0100	Discussion
0102	Janna Bianchini MW 11:00am - 11:50am W 9:00am - 9:50am	Seats (Total: 24) SYM 0200 KEY 0100	Discussion
0103	Janna Bianchini MW 11:00am - 11:50am W 12:00pm - 12:50pm	Seats (Total: 24) SYM 0200 KEY 0100	Discussion

HIST289L **Comparative History of Crime and Punishment**

Credits: 3 | Grading Method: Regular, Pass-Fail, Audit | General Education: DSHS, SCIS

This course will explore the transformation of crime and punishment in England, France, and America over five centuries. In doing so, it will focus on the connections between forms of government, cultural norms, and punishment. How do ideas about government and its rightful exercise connect to which actions are deemed crimes, and to how those crimes are punished?

0101	Holly Brewer TuTh 9:30am - 10:20am Tu 11:00am - 11:50am	Seats (Total: 24) KEY 0106 TLF 1101	Discussion
0102	Holly Brewer TuTh 9:30am - 10:20am Tu 12:30pm - 1:20pm	Seats (Total: 24) KEY 0106 KEY 1117	Discussion
0103	Holly Brewer TuTh 9:30am - 10:20am Th 12:30pm - 1:20pm	Seats (Total: 24) KEY 0106 KEY 1117	Discussion

HIST289N **The Politics of Sexuality in America: A Historical Approach**

Credits: 3	Grading Method: Regular, Pass-Fail, Audit	CORE: SH	General Education: DSHS, DVUP, SCIS

Why do particular issues about sexuality hold such an important place in American political debates? What animates these controversies and what can a historical perspective on these issues add to our understanding of modern sexual politics? This class explores the historical sexual politics that undergird contemporary debates concerning sexuality in America. It focuses on topics that garner significant public attention - Reproductive rights - LGBTQ rights - Sexting - and explores the histories that undergird Americans disagreements.

Why do particular issues about sexuality hold such an important place in American political debates? What animates these controversies and what can a historical perspective on these issues add to our understanding of modern sexual politics? This class explores the historical sexual politics that undergird contemporary debates concerning sexuality in America. It focuses on topics that garner significant public attention - Reproductive rights - LGBTQ rights - Sexting - and explores the histories that undergird Americans disagreements.

0101	Clare Lyons MW 1:00pm - 1:50pm M 2:00pm - 2:50pm	Seats (Total: 24) SQH 1120 LEF 1220	 Discussion
0102	Clare Lyons MW 1:00pm - 1:50pm W 10:00am - 10:50am	Seats (Total: 24) SQH 1120 HBK 0123	 Discussion
0103	Clare Lyons MW 1:00pm - 1:50pm W 11:00am - 11:50am	Seats (Total: 24) SQH 1120 HBK 0123	 Discussion

HIST289R **Pocketbook Politics: A History of American Buying and Selling**

Credits: 3	Grading Method: Regular, Pass-Fail, Audit	General Education: DSHU, SCIS

Provides a thematic approach to consumerism as it emerged in the United States over the course of three centuries. The history of consumption is a prism through which many aspects of social and political life may be viewed. How does what we wear, what we listen to, or what we eat shape our identities?

This course is designed to provide a thematic approach to consumerism as it emerged in the United States over the course of three centuries. The history of consumption is a prism through which many aspects of social and political life may be viewed. How does what we wear, what we listen to, or what we eat shape our identities?

0101	Katarina Keane TuTh 2:00pm - 2:50pm Tu 12:30pm - 1:20pm	Seats (Total: 24) KEY 0106 KEY 0100	 Discussion
0102	Katarina Keane TuTh 2:00pm - 2:50pm Th 11:00am - 11:50am	Seats (Total: 24) KEY 0106 TLF 1101	 Discussion
0103	Katarina Keane TuTh 2:00pm - 2:50pm Th 12:30pm - 1:20pm	Seats (Total: 24) KEY 0106 KEY 0100	 Discussion

HIST289V **What Does It Mean to be An American?**

Credits: 3 | Grading Method: Regular, Pass-Fail, Audit | General Education: DSHS, SCIS

This course seeks to understand the on-going crisis over national identity and purpose by examining the many factors that go into the big stew known as America.

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0101	Howard Smead MW 11:00am - 11:50am M 12:00pm - 12:50pm	Seats (Total: 24) KEY 0106 TLF 1101	 Discussion
0102	Howard Smead MW 11:00am - 11:50am M 1:00pm - 1:50pm	Seats (Total: 24) KEY 0106 TLF 1101	 Discussion
0103	Howard Smead MW 11:00am - 11:50am W 12:00pm - 12:50pm	Seats (Total: 24) KEY 0106 TLF 1101	 Discussion

HIST289X **History and the Politics of American Memory**

Credits: 3 | Grading Method: Regular, Pass-Fail, Audit | General Education: DSHS, SCIS

In this course students will study the relationship between history, memory, politics, and 20th Century American warfare. Examining multiple forms used to convey historical information - includingphotography, film, memorials/museums, monuments, children's literature, memoirs, television and digital sites- students will consider how "collective memory-making" has intersected with the changing and contested histories of 20th century American wars.

0101	Colleen Woods TuTh 2:00pm - 2:50pm W 10:00am - 10:50am	Seats (Total: 24) ASY 1213 TLF 1103	Discussion
0102	Colleen Woods TuTh 2:00pm - 2:50pm W 11:00am - 11:50am	Seats (Total: 24) ASY 1213 TLF 1103	Discussion
0103	Colleen Woods TuTh 2:00pm - 2:50pm W 1:00pm - 1:50pm	Seats (Total: 24) ASY 1213 TLF 1103	Discussion

HIST299 **Directed Research**

(Perm req)

Credits: 1-3 Grading Method: Regular, Pass-Fail, Audit

Closely guided research in primary sources for students currently enrolled in selected 100- or 200-level surveys in the Department of History.

Prerequisite: permission of department.

Contact department for information to register for this course.

HIST307 **The Holocaust of European Jewry**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Cross-listed with JWST345. Credit only granted for: HIST307 or JWST345.

Roots of Nazi Jewish policy in the 1930's and during World War II: the process of destruction and the implementation of the "final solution of the Jewish problem" in Europe, and the responses made by the Jews to their concentration and annihilation.

0101	Marsha Rozenblit TuTh 11:00am - 12:15pm	Seats (Total: 40) KEY 0103

HIST319A **Special Topics in History; City God, Dragon Boat, and Monkey King: Popular Culture and Society in Imperial China**

Credits: 3

Grading Method: Regular, Pass-Fail, Audit

This course will explore popular culture, society, and religion in China , with a focus on the late imperial periods (1368-1911). A variety of (translated) primary sources and secondary sources will be discussed, including the famous sixteenth-century popular novel "The Journey to the West," which features the adventures of the powerful Monkey King in his quest for pleasure, immorality, and salvation. The course will raise and address questions about popular culture, vernacular literature, folk religion, ritual operas, and everyday life of ordinary people in late imperial China.

0101	Ting Zhang	Seats (Total: 30)
	MW 2:00pm - 3:15pm	KEY 1117

HIST319F **Special Topics in History; Modern African History through Film, Literature, and Music**

Credits: 3

Grading Method: Regular, Pass-Fail, Audit

Approaches film, literature, and music as interpretive lenses through which to understand 19th- and 20th-century African history, with special emphasis on the ways that African artists have used creative genres to reclaim Africa s past while also imagining new futures.

0101	Erin Mosely	Seats (Total: 30)
	MW 2:00pm - 3:15pm	TLF 1103

HIST319I **Special Topics in History; The Lion and the Man: Frederick Douglass's Life and Times**

Credits: 3

Grading Method: Regular, Pass-Fail, Audit

Cross-listed with AMST328Y. Credit granted for HIST319I or AMST328Y.

0101	Christopher Bonner	Seats (Total: 40)
	MW 2:00pm - 3:15pm	KEY 0126

HIST319R **Special Topics in History; Genghis Khan and the Mongols: Destroyers of Worlds and Patrons of Culture**

Credits: 3

Grading Method: Regular, Pass-Fail, Audit

0101	Colleen Ho	Seats (Total: 40)
	TuTh 2:00pm - 3:15pm	KEY 0103

HIST319T **Special Topics in History; African Poetry, Oral Tradition, and Letters as History**

Credits: 3

Grading Method: Regular, Pass-Fail, Audit

0101	Paul Landau TuTh 3:30pm - 4:45pm	Seats (Total: 20) KEY 0100

HIST319Y **Special Topics in History; Barcelona: The City and Its History**

Credits: 3

Grading Method: Regular, Pass-Fail, Audit

Contact department for information to register for this course.

HIST320 **Early Christianity: Jesus to Constantine**

Credits: 3

Grading Method: Regular, Pass-Fail, Audit

Prerequisite: Must have completed one course in ancient history at the 200 level. Cross-listed with JWST331. Credit only granted for: HIST320 or JWST331.

Social and religious history of early Christianity from its origins in the first century to the reign of Constantine.

Cross-listed with JWST331. Credit granted for HIST320 or JWST331.

0101	Elizabeth Conner TuTh 9:30am - 10:45am	Seats (Total: 40) TYD 2110

HIST321 **Biblical History and Culture**

Credits: 3

Grading Method: Regular, Pass-Fail

Cross-listed with: JWST324. Credit only granted for: HIST321, or JWST324.

Study of the political, social, and religious development of the Jewish nation from its inception to its return from exile in Babylonia around 536 C.E. Focus on biblical texts, archeological finds, and source materials from neighboring cultures to reconstruct political history and the development of religious concepts.

0101	Matthew Suriano TuTh 2:00pm - 3:15pm	Seats (Total: 40) SQH 1119

HIST324 **Classical Greece**

Credits: 3

Grading Method: Regular, Pass-Fail, Audit

The ancient Greeks from Homer to Socrates, 800-400 B.C. Society and religion of the city-state, the art and literature of Periclean Athens, the Peloponnesian War, and the intellectual circle of Socrates.

0101	Elizabeth Conner TuTh 2:00pm - 3:15pm	Seats (Total: 40) KEY 0126

HIST328A **Selected Topics in History; "Forging the Tortilla Curtain": US-Mexican Borderlands History, 1800-Present**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Crosslisted with USLT318C. Credit only granted for HIST328A or USLT318C.

0101	Chantel Rodriguez TuTh 11:00am - 12:15pm	Seats (Total: 40) KEY 0126

HIST328F **Selected Topics in History; The Right in Israel: A Historical Examination**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Cross-listed with ISRL349D. Credit only granted for ISRL349D or HIST328F. Israel has clearly moved towards the political Right during the last 30 years. This course will explore the history of that movement, beginning before Israeli became a state with the Revisionist movement and its offshoots. We focus primarily on post-1967, examining the religious and non-religious movements and parties that have advocated a Greater Israel. No previous knowledge of Israeli history required. Contact instructor for more information.

0101	Paul Scham TuTh 2:00pm - 3:15pm	Seats (Total: 25) SQH 1123

HIST328N **Selected Topics in History; The History of Medicine**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

This course meets once per week on campus; the rest of the course content will be on ELMS. A history of medicine from antiquity to the present. Principal goals include the exploration of historical perspectives on the development of medical advances and practices such as diagnosis, therapeutics, surgery, nursing, dentistry, pharmacy, psychiatry, medical ethics, and the role of both men and women in shaping the history of medical sciences.

0101	Philip Mackowiak Tu 11:00am - 12:15pm Class time/details on ELMs	Seats (Total: 40) PHY 4221 ONLINE

HIST329A **Special Topics in History; Cities of Real & Imagined Disasters**

Credits: 3

Grading Method: Regular, Pass-Fail, Audit

The history of real and imagined urban disasters in modern global history is examined through the study of events such as earthquakes, hurricanes, fires, terrorism, and the creation of monsters such as Godzilla and King Kong. The course includes the study of the significance of historical events such as Hurricane Katrina, the San Francisco and Mexico City earthquakes, Hiroshima, Chernobyl, and 9/11.

0101	Daniel Richter MW 2:00pm - 3:15pm	Seats (Total: 30) KNI 1103

HIST329B **Special Topics in History; Drugs in the Modern World: From Opium Wars to the War on Drugs**

Credits: 3

Grading Method: Regular, Pass-Fail, Audit

This course explores the history of drugs in a global context by focusing on the origins and demand for drugs including opium, alcohol, caffeine, cocaine, marijuana, heroin, OxyContin, and Viagra.

0101	Daniel Richter MW 12:00pm - 12:50pm Class time/details on ELMs	Seats (Total: 40) KEY 0103 ONLINE

HIST329E **Special Topics in History; Black Women in United States History**

Credits: 3

Grading Method: Regular, Pass-Fail, Audit

Crosslisted with WMST314 and HIST329E; credit will only be granted for AASP313, WMST314, or HIST329E.

0101	Elsa Barkley Brown Tu 4:00pm - 6:30pm	Seats (Total: 35) SKN 1115

HIST329L **Special Topics in History; Riches and Ruin: A Global History of Capitalism**

Credits: 3

Grading Method: Regular, Pass-Fail, Audit

Surveys the development of capitalism since the 1500s from a global perspective, focusing on Asia, Africa, and Latin America. Topics include commodity flows, labor migration, the environment, markets, and entrepreneurs. Engagement with key scholarly debates, primary sources, and digital methods.

0101	Mircea Raianu	Seats (Total: 40)
	MW 2:00pm - 3:15pm	SQH 1101

HIST329Z **Mizrahi Identity in Israel**

Credits: 3 | Grading Method: Regular, Pass-Fail, Audit | General Education: DSHS, DVUP

Cross-listed with: JWST319D, ISRL329M. Credit only granted for: JWST319D, HIST329Z, or ISRL329M.

Cross-listed with JWST319D and ISRL329M. Credit granted for JWST319D, ISRL329M, or HIST329Z. This course brings to light narratives of Mizrahi identity in Israel and explores the trajectory of the Mizrahi struggle for equality through its various milestones: the 1959 Wadi Salib Revolt, the Black Panthers Movement in the 1970s, the emergence of the Israeli Sephardi-Orthodox party Shas, and the new wave of Mizrahi activism in the 21st century.

0101	Shay Hazkani	Seats (Total: 20)
	TuTh 3:30pm - 4:45pm	SQH 1119

HIST354 **Ante-Bellum America 1815-1861**

Credits: 3 | Grading Method: Regular, Pass-Fail, Audit

Prerequisite: HIST200, HIST210, HIST213, HIST222, HIST254, or HIST275; or must have completed HIST156; or permission of instructor.

Traces how the strong nationalism after the War of 1812 transformed int the sectionalism that led to Civil War. The course concentrates on the controversies over slavery and other issues contributing to North-South antagonism, including Jacksonian democracy, capitalism, racism, immigration, manifest destiny and religious, social, and intellectual movements, each of which produced its own social tendencies and tensions.

0101	Robert Chiles	Seats (Total: 40)
	TuTh 2:00pm - 3:15pm	KEY 0116

HIST356 **Emergence of Modern America, 1900-1945**

Credits: 3 | Grading Method: Regular, Pass-Fail, Audit

Prerequisite: HIST201, HIST211, HIST213, HIST222, HIST255, or HIST275; or must have completed HIST157; or permission of instructor.

The emergence of modern institutions and identities, 1900-1945. These institutions may include corporate enterprises and the welfare state; identities include homosexuality, the New Woman, and the New Negro.

0101	Robert Chiles	Seats (Total: 40)
	TuTh 9:30am - 10:45am	KEY 0116

HIST357 **Recent America: 1945-Present**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Prerequisite: HIST201, HIST211, HIST213, HIST222, HIST255, or HIST275; or must have completed HIST157; or permission of instructor.

American history from the inauguration of Harry S. Truman to the present with emphasis upon politics and foreign relations, but with consideration of special topics such as radicalism, conservatism, and labor.

0101	Howard Smead	Seats (Total: 40)
	MW 2:00pm - 3:15pm	KEY 0103

HIST386 **Experiential Learning**

(Perm req)

Credits: 3-6 Grading Method: Regular, Pass-Fail

Restriction: Permission of ARHU-History department; and junior standing or higher.

The History Department's Internship program. Pre-professional experience in historical research, analysis, and writing in a variety of work settings.

Contact department for information to register for this course.

HIST396 **Honors Colloquium II**

(Perm req)

Credits: 3 Grading Method: Regular, Pass-Fail, Audit CORE: CS General Education: DSSP

Prerequisite: Permission of ARHU-History department; or HIST395. Restriction: Must be in History program.

Uses a seminar approach to examine a major problem of historical interpretation across two or more diverse cultures in different periods. Topics vary and include: religion and society, the city in history, gender, slavery and emancipation, and modernization.

0101	Thomas Zeller	Seats (Total: 12)
	W 12:00pm - 1:50pm Contact instructor or department for details.	TLF 2101

HIST398 **Honors Thesis I**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Individual research and preparation of History Honors Theses.

Contact department for information to register for this course.

HIST399 **Honors Thesis II**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Individualized research and preparation of History Honors Theses.

Contact department for information to register for this course.

HIST408A **Senior Seminar; The Worlds of Benjamin Franklin**

(Perm req)

Credits: 3 Grading Method: Regular, Pass-Fail CORE: CS General Education: DSSP

A capstone course for history majors, designed to increase historical knowledge and the ability to analyze texts and arguments. Topics will focus on the literature of a particular field and primary-source research.

To a remarkable extent, Franklin witnessed and created the world that seems familiar to us now. His long life (1706-1790) spanned most of the eighteenth century, making his incredibly varied accomplishments a superb measure of the cultural and historic changes in this era. What's more, he began his life at a modest level but then ended it as the most famous American of his day, his self-made manhood making him an excellent case study of the differences between ordinary and extraordinary lives, typical and atypical experiences, common and elite cultures.

0101	Richard Bell	Seats (Total: 12)
	Tu 11:00am - 12:50pm Contact instructor or department for details.	TLF 2108

HIST408J **Senior Seminar; Telling War Stories: Using Oral History to Write Military History**

(Perm req)

Credits: 3 Grading Method: Regular, Pass-Fail CORE: CS General Education: DSSP

A capstone course for history majors, designed to increase historical knowledge and the ability to analyze texts and arguments. Topics will focus on the literature of a particular field and primary-source research.

This research seminar explores the human side of war, concentrating on the "war stories" of the ordinary men and women who gave their blood, sweat, and tears on the frontlines. It will culminate in a research paper based upon the oral histories gathered by the Library of Congress' Veterans' Oral History Project.

0101	Patrick Chung	Seats (Total: 12)
	Th 2:00pm - 3:50pm Contact instructor or department for details.	TLF 2100

HIST408K **Senior Seminar; Antisemitism: Classic, Modern, and New**

(Perm req)

Credits: 3 | Grading Method: Regular, Pass-Fail | CORE: CS | General Education: DSSP

A capstone course for history majors, designed to increase historical knowledge and the ability to analyze texts and arguments. Topics will focus on the literature of a particular field and primary-source research.

A readings seminar on change and continuities between the "old" forms of Christian religious anti-Judaism and the "modern" racist antisemitism that culminated in the Holocaust. We then turn to the "new" and "golbalized" antisemitism that emerged inside and outside Europe in the 20th century in leftist, far right and Islamist variations and continues in recent decades.

0101	Jeffrey Herf	Seats (Total: 12)
	W 1:00pm - 2:50pm Contact instructor or department for details.	TLF 2108

HIST408M **Senior Seminar; Race and the History of Jim Crow**

(Perm req)

Credits: 3 | Grading Method: Regular, Pass-Fail | CORE: CS | General Education: DSSP

A capstone course for history majors, designed to increase historical knowledge and the ability to analyze texts and arguments. Topics will focus on the literature of a particular field and primary-source research.

This readings seminar examines the work of race and racial formation during the rise of Jim Crow sanctioned by law and custom from 1865-1967.

0101	Quincy Mills	Seats (Total: 12)
	Th 12:30pm - 2:20pm Contact instructor or department for details.	TLF 2108

HIST408X **Senior Seminar; Britain at War: A Social and Cultural History, From WWI to the Cold War**

(Perm req)

Credits: 3 | Grading Method: Regular, Pass-Fail | CORE: CS | General Education: DSSP

A capstone course for history majors, designed to increase historical knowledge and the ability to analyze texts and arguments. Topics will focus on the literature of a particular field and primary-source research.

Prerequisite: Permission of department. From the idealism of the "Soldier Poets" of 1914 who believed war would be "a great adventure" to the apocalyptic fears of the Cold War generation, war has shaped Twentieth Century British social and cultural history, especially British notions of class and gender. This is a readings based seminar, using memoirs, novels, and films, as well as secondary sources.

0101	Julie Taddeo	Seats (Total: 12)
	M 10:00am - 11:50am Contact instructor or department for details.	TLF 2108

HIST408Y **Senior Seminar; Jewish Women and Modernity**

(Perm req)

Credits: 3 | Grading Method: Regular, Pass-Fail | CORE: CS | General Education: DSSP

A capstone course for history majors, designed to increase historical knowledge and the ability to analyze texts and arguments. Topics will focus on the literature of a particular field and primary-source research.

This research seminar will explore how Jewish women experienced modernization in Europe and America in the nineteenth and twentieth centuries. We will read memoirs of Jewish women in Germany, Russia, Poland, and the United States to see how they experienced assimilation, religious change, gender norms, education, and politics. Students will use primary sources to study Jewish women in these places and others.

0101	Marsha Rozenblit	Seats (Total: 6)
	Tu 3:30pm - 5:20pm Contact instructor or department for details.	TLF 2101

HIST417 **Colonial Encounters: Natives, Spaniards, and Africans in the New World**

Credits: 3 | Grading Method: Regular, Pass-Fail, Audit

Recommended: HIST220 and HIST250. Credit only granted for: HIST417 or HIST428Y. Formerly: HIST428Y.

An exploration of the discourses and practices of the Spanish colonial project in the New World and the ways in which Indians and Blacks were incorporated into or excluded from that project. Also examines native and African resistance and adaptation to Spanish rule, and the process of transformation and hybridization of Spanish, native and African cultures in Spanish America. An analysis of recent historiographical developments that have profoundly changed the understanding of the Spanish conquest and colonization of the New World.

0101	Alejandro Caneque	Seats (Total: 30)
	TuTh 2:00pm - 3:15pm	TLF 1103

HIST419A **Special Topics in History; From Neverland to Downton Abbey: History and Popular Culture in 20th Century Britain**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

This course uses the lens of popular culture to study 20th Century Britain- from the peak of colonial power to the nation's "decline" in the age of Brexit. Kids' adventure stories, wartime propaganda films, youth culture, sports, and music, post-colonial fiction, and our current nostalgia for the past, from "Downtown Abbey" and "Peaky Blinders" to "The Great British Bake-Off" are just a few of the topics we will cover.

0101	Julie Taddeo	Seats (Total: 30)
	MW 2:00pm - 3:15pm	KEY 0100

HIST419B **Special Topics in History; China's Last Empire: History of the Great Qing, 1644-1911**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

History of China's last imperial dynasty, the Great Qing, founded by the Manchus and ruled China from 1644 to 1911. Topics include the Manchu conquest, emperors and the bureaucracy, economic growth and commercialization, territorial expansion, social and cultural changes, and the Qing in contemporary Chinese popular culture.

0101	Ting Zhang	Seats (Total: 20)
	M 11:00am - 1:30pm	TLF 2103

HIST419L **Special Topics in History; Postcolonialism**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Cross-listed with ANTH469L, AMST498F, ENGL479O, LASC448K, and PHIL428A. Credit only granted for HIST419L, ANTH469L, AMST498F, ENGL479O, LASC448K, or PHIL428A.

0101	James Maffie	Seats (Total: 40)
	TuTh 3:30pm - 4:45pm	KEY 0116

HIST425 **Imperial Russia**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

The rise and fall of the Russian Empire, Peter the Great to the collapse of tsarism in revolution. Emphasis on the evolution of autocracy, social groups, national identities, and cultural change.

0101	Mikhail Dolbilov	Seats (Total: 30)
	TuTh 3:30pm - 4:45pm	TLF 1103

HIST428B **Selected Topics in History; Seven Revolutions in Postwar Africa**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

0101	Paul Landau	Seats (Total: 20)
	TuTh 11:00am - 12:15pm	KEY 0100

HIST428G **Selected Topics in History; Islamic Reformism**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

0101	Peter Wien	Seats (Total: 10)
	Tu 3:30pm - 6:00pm	TLF 2100

HIST428M **Selected Topics in History; Oral History of Immigration**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit General Education: DSSP, DVCC

Uses oral history to explore experiences of migrants to the Washington, D.C. area since the mid-twentieth century in projects based on engagement with local immigrants.

0101	Anne Rush	Seats (Total: 20)
	TuTh 2:00pm - 3:15pm	TLF 1101

HIST428P **Selected Topics in History; Trashed! Garbage and Recycling in History**

Credits: 3

Grading Method: Regular, Pass-Fail, Audit

In this upper-level reading seminar, students will explore how humans have produced, dealt with, and ignored trash and recycling. We will look at case studies from North America, Europe, and Asia from the 19th 20th century to understand how the role of garbage in society has changed over time.

0101	Thomas Zeller W 3:30pm - 6:00pm	Seats (Total: 12) KEY 0123

HIST428W **Selected Topics in History; Global Mobility in the Age of Sail: Studies in Sexuality, Gender, Race & Colonialism**

Credits: 3

Grading Method: Regular, Pass-Fail, Audit

From the Fifteenth century on Europeans took to the sea to explore the far reaches of the globe. They sought trade, natural resources, and land to expand their dominions. These seafaring adventures initiated colonialism, conquest, and the rise of Atlantic slavery. This class explores how this global geographic movement changed ideas and practices of sexuality; how sexuality was used to deploy colonial power and resist it; and how sexuality was central to deployment of new ideas about race and gender.

0101	Clare Lyons W 3:30pm - 6:00pm	Seats (Total: 18) TLF 2103

HIST429M **Special Topics in History; History & Memory in Medieval Islam**

Credits: 3

Grading Method: Regular, Pass-Fail, Audit

0101	Antoine Borrut W 3:30pm - 6:00pm	Seats (Total: 12) TLF 2100

HIST429O **Special Topics in History; Righting Historical Wrongs: Global Struggles for Truth and Justice**

Credits: 3

Grading Method: Regular, Pass-Fail, Audit

Explores the diverse range of approaches that societies around the world have adopted to investigate, adjudicate, acknowledge, or otherwise atone for mass violence and gross human rights abuses.

0101	Erin Mosely W 3:30pm - 6:00pm	Seats (Total: 18) TLF 1103

HIST429X **Special Topics in History; Tradition and Change: Jewish Religion in the Modern World**

Credits: 3 | Grading Method: Regular, Pass-Fail, Audit | General Education: DSHS, DSHU, DVUP

Cross-listed with JWST347 and RELS419R. Credit granted for JWST347, RELS419R, or HIST429X. An exploration of the history of the different modern Jewish religious movements that developed in Europe, starting with messianic movements and ending with Reform and Orthodoxy. Emphasis will be placed on the influence of the academic study of Judaism on the development of modern Jewish religious ideologies and practices.

0101	Rachel Manekin TuTh 2:00pm - 3:15pm	Seats (Total: 40) SQH 1105

HIST429Z **Special Topics in History; Comparitive Colonialisms in Southeast Asia**

Credits: 3 | Grading Method: Regular, Pass-Fail, Audit

0101	Colleen Woods Tu 3:30pm - 6:00pm	Seats (Total: 20) SQH 2113

HIST431 **Becoming Great Britain, 1603-1704**

Credits: 3 | Grading Method: Regular, Pass-Fail, Audit

An examination of the political, religious, and social forces in English life, 1603-1714, with special emphasis on Puritanism and the English revolutions.

0101	Sabrina Baron TuTh 12:30pm - 1:45pm	Seats (Total: 25) TLF 1101

HIST437 **Modern France from Napoleon to De Gaulle**

Credits: 3 | Grading Method: Regular, Pass-Fail, Audit

The changing political and cultural values of French society in response to recurrent crises throughout the 19th and 20th centuries. Students should have had some previous survey of either Western civilization or European history.

0101	Thomas Kaiser TuTh 11:00am - 12:15pm	Seats (Total: 30) TLF 1103

HIST455 **Constitutional History of the United States: Since 1865**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

American public law and government, with emphasis on the interaction of government, law, and politics, and the relationship between the constitution and social forces and influences, the way in which constitutional principles, rules, ideas, and institutions affect events and are in turn affected by events. Major crises in American government and politics such as Reconstruction,the rise of corporate power, civil liberties during wartime, the New Deal era, the civil disorders of the 1960s.

0101	Michael Ross	Seats (Total: 40)
	TuTh 12:30pm - 1:45pm	SQH 1119

HIST460 **History of Labor in the United States**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Prerequisite: HIST200, HIST201, HIST210, HIST211, HIST222, HIST255, or HIST275; or must have completed HIST156 or HIST157; or permission of instructor.

The American working class in terms of its composition; its myths and utopias; its social conditions; and its impact on American institutions.

0101	Julie Greene	Seats (Total: 30)
	TuTh 12:30pm - 1:45pm	TLF 1103

HIST462 **Slavery, Sectionalism, and the U.S. Civil War**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Slavery, sectionalism, and the coming of the Civil War. Resources and strategy of the Confederacy and the Union, the war's changing character, emancipation and its consequences, conditions on the home front, and the wartime origins of Reconstruction.

0101	Leslie Rowland	Seats (Total: 40)
	MW 6:00pm - 7:15pm	KEY 0103

HIST469Q **Study Abroad Special Topics IV; History of Spain I: Up to the 20th Century**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Special topics course taken as part of an approved study abroad program.

Contact department for information to register for this course.

HIST476 **Jews in Medieval Times 1000-1450**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Recommended: HIST282, HIST330, HIST331, or JWST234. Cross-listed with J WST432. Credit only granted for: HIST476 or JWST432.

Social and cultural life of Jewish communities spread throughout Islam and Christendom. Major topics include the Gaonate, kehila organizations, legal, rationalist, and mystical thought, and the context of rising animosity against Jews linked to the Crusades and changing Church doctrines.

0101	Bernard Cooperman	Seats (Total: 30)
	MW 10:00am - 10:50am	ESJ 2309
	Class time/details on ELMs	ONLINE

HIST483 **History of Japan Since 1800**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Japan's renewed contact with the Western world and emergence as a modern state, industrial society, and world power, 1800-1931; and Japan's road to war, occupation, and recovery, 1931 to the present.

0101	Louisa Rubinfien	Seats (Total: 40)
	TuTh 11:00am - 12:15pm	SQH 1105

HIST495 **Women in Medieval Culture and Society**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Cross-listed with WMST455. Credit only granted for: HIST495 or WMST455.

Medieval women's identity and cultural roles: the condition, rank and rights of medieval women; their access to power; a study of women's writings and the constraints of social constructs upon the female authorial voice; and contemporary assumptions about women.

0101	Janna Bianchini	Seats (Total: 30)
	MW 2:00pm - 3:15pm	TLF 1101

HIST499 **Independent Study**

(Perm req)

Credits: 1-3 Grading Method: Regular, Pass-Fail, Audit

Prerequisite: permission of department.

Contact department for information to register for this course.

HIST601 **History and Contemporary Theory**

Credits: 3 Grading Method: Regular, Audit, Sat-Fail

An introduction to contemporary theories in philosophy, literary criticism, cultural studies, anthropology, and other fields; and analysis of their usefulness to historians.

0101	Bernard Cooperman W 3:30pm - 6:00pm	Seats (Total: 12) TLF 2108

HIST607 **The Teaching of History in Institutions of Higher Learning**

(Perm req)

Credits: 1 Grading Method: Sat-Fail

For majors only.

0101	Alejandro Caneque Contact instructor or department for details.	Seats (Total: 15)
0201	Antoine Borrut Contact instructor or department for details.	Seats (Total: 6)

HIST608B **General Seminar; American History**

(Perm req)

Credits: 3 Grading Method: Regular, Audit, Sat-Fail

General seminar in student's major field of study (e.g., U.S.; Women and Gender; International, World, and Comparative; Science and Technology; Latin America) exploring the concentration's major issues, topics, and literature.

Prerequisite: permission of department.

0101	Saverio Giovacchini M 6:00pm - 8:30pm	Seats (Total: 12) TLF 2108

HIST619A **Special Topics in History; Independent Study**

(Perm req)

Credits: 1-3 Grading Method: Regular, Audit, Sat-Fail

Prerequisite: permission of department.

Contact department for information to register for this course.

HIST619B **Special Topics in History; Independent Study**

(Perm req)

Credits: 1-3 Grading Method: Regular, Audit, Sat-Fail

Prerequisite: permission of department.

Contact department for information to register for this course.

HIST619M **Special Topics in History; Readings in Nineteenth Century US History**

Credits: 3 Grading Method: Regular, Audit, Sat-Fail

0101	Michael Ross Th 6:00pm - 8:30pm	Seats (Total: 12) TLF 2108

HIST619X **Special Topics in History; US State and Society since Reconstruction**

Credits: 3 Grading Method: Regular, Audit, Sat-Fail

0101	Robyn Muncy Th 3:30pm - 6:00pm	Seats (Total: 12) TLF 2108

HIST638P **Special Topics in History; Trashed! Garbage and Recycling in History**

Credits: 3 Grading Method: Regular, Audit, Sat-Fail

Special Topics in History.

In this upper-level reading seminar, students will explore how humans have produced, dealt with, and ignored trash and recycling. We will look at case studies from North America, Europe, and Asia from the 19th and 20th century to understand how the role of garbage in society has changed over time.

0101	Thomas Zeller W 3:30pm - 6:00pm	Seats (Total: 8) KEY 0123

HIST639M **Special Topics in History; History & Memory in Medieval Islam**

Credits: 3 Grading Method: Regular, Audit, Sat-Fail

Special Topics in History.

0101	Antoine Borrut	Seats (Total: 3)
	W 3:30pm - 6:00pm	TLF 2100

HIST708 **Directed Independent Reading for Comprehensive Examinations I**

Credits: 1-4 Grading Method: Sat-Fail

Directed reading in preparation for Doctoral Comprehensive Examinations. In consultation with their advisors, students will select a number of books and articles from an approved list. Grading for the course will reflect performance on the written and oral sections of the Comprehensive Examinations.

Contact department for information to register for this course.

HIST709 **Directed Independent Reading for Comprehensive Examinations II**

Credits: 1-4 Grading Method: Sat-Fail

Directed reading in preparation for Doctoral Comprehensive Examinations. In consultation with their advisors, students will select a number of books and articles from an approved list. Grading for the course will reflect performance on the written and oral sections of the Comprehensive Examinations.

Contact department for information to register for this course.

HIST720 **Readings in the History of the Catholic Church**

Credits: 3 Grading Method: Regular, Audit, Sat-Fail

This is graduate-level readings seminar in the modern history of the Catholic Church. We will begin with the Reformation and proceed through the present day. This course will combine European history with global history, looking both at how the Church changed in the face of major turning points in modern European history (the Scientific, French, and Russian Revolutions; the two world wars; and the Cold War) and at its missionary encounters and long-term presence across the world (in Latin America, India, China, Africa, and North America).

0101	Piotr H Kosicki	Seats (Total: 12)
	W 6:00pm - 8:30pm	TLF 2108

HIST779C **Readings in Middle Eastern History; Islamic Reformism**

Credits: 3 Grading Method: Regular, Audit, Sat-Fail

0101	Peter Wien	Seats (Total: 5)
	Tu 3:30pm - 6:00pm	TLF 2100

HIST799 **Master's Thesis Research**

(Perm req) Credits: 1-6 Grading Method: Sat-Fail

Contact department for information to register for this course.

HIST810 **Museum Research Seminar**

Credits: 3 Grading Method: Regular, Audit, Sat-Fail

Prerequisite: AMST655, ANTH655, or HIST610. Cross-listed with ANTH856, AMST856. Credit only granted for: AMST856, ANTH856, or HIST810.

A research seminar focusing on the practice and presentation of cultural and historical scholarship in museums and historical sites. Students will complete an original research project on the challenges and opportunities of public exhibition and interpretation of cultural and historical research.

0101	Henry Gregory W 7:15pm - 10:00pm	Seats (Total: 15) WDS 1130

HIST811 **Museum Scholarship Practicum**

(Perm req) Credits: 3-6 Grading Method: Regular, Sat-Fail

Prerequisite: AMST856, ANTH856, or HIST810. Restriction: Permission of Museum Scholarship Program required. Cross-listed with ANTH857, AMST857. Credit only granted for: AMST857, ANTH857, or HIST811.

Students devise and carry out a research program using the collections at the Smithsonian Institution or some other cooperating museum, working under joint supervision of a museum professional and a university faculty member.

0401	Instructor: TBA Contact instructor or department for details.	Seats (Total: 5)
0402	Paul Jaeger Contact instructor or department for details.	Seats (Total: 5)

HIST819A **Special Topics in History: Independent Research**

(Perm req) Credits: 1-3 Grading Method: Regular, Audit, Sat-Fail

Individual graduate research in an area not covered by current seminar offerings. The product will be a finished research paper normally based on original materials.

Department permission required.

Contact department for information to register for this course.

HIST819B **Special Topics in History: Independent Research**

(Perm req)

Credits: 1-3 Grading Method: Regular, Audit, Sat-Fail

Individual graduate research in an area not covered by current seminar offerings. The product will be a finished research paper normally based on original materials.

Department permission required.

Contact department for information to register for this course.

HIST819G **Special Topics in History: Independent Research; Research Seminar in Early America**

Credits: 3 Grading Method: Regular, Audit, Sat-Fail

Individual graduate research in an area not covered by current seminar offerings. The product will be a finished research paper normally based on original materials.

0101	Holly Brewer	Seats (Total: 12)
	Tu 3:30pm - 6:00pm	TLF 2108

HIST819Y **Special Topics in History: Independent Research; Global Research Seminar**

Credits: 3 Grading Method: Regular, Audit, Sat-Fail

Individual graduate research in an area not covered by current seminar offerings. The product will be a finished research paper normally based on original materials.

0101	David Sartorius	Seats (Total: 12)
	Tu 3:30pm - 6:00pm	TLF 2103

HIST898 **Pre-Candidacy Research**

Credits: 1-8 Grading Method: Regular, Sat-Fail

Contact department for information to register for this course.

HIST899 **Doctoral Dissertation Research**

(Perm req)

Credits: 6 Grading Method: Sat-Fail

Contact department for information to register for this course.

HLMN471 **Entrepreneurial Finance**

Credits: 3 Grading Method: Regular, Pass-Fail

Restriction: Restricted to students in the Southern Management Leadership Program. Credit only granted for: HLMN471, SMLP471, ENES466 or BMGT365. Formerly: HLMN471. Additional information: SMLP471 may not count toward any BMGT major or minor degree.

Examine the elements of entrepreneurial finance, develop and analyze financial statements, focusing on technology-based startup ventures and the early stages of company development. Address key questions that challenge all entrepreneurs: how much money can and should be raised; when it should be raised and from whom; how to define a reasonable valuation of a company; and how to structure funding, develop employment contracts, and make exit decisions. Analyze the variety of financing models across a venture's life cycle, with an aim to understanding the incentives of each type of investor and the relative costs and benefits of each source of funding.

0101	Brian Baick	Seats (Total: 60)
	F 1:00pm - 3:30pm	SQH 1119

HLMN473 **Consulting in Tech Entrepreneurship**

Credits: 3 Grading Method: Regular, Pass-Fail

Restriction: Restricted to students in the Southern Management Leadership Program. Credit only granted for: HLMN473 or SMLP473. Formerly: HLMN473. Additional information: HLMN473 may not count toward any BMGT major or minor degree.

Apply the entrepreneurship/business principles learned in the classroom to real-world consulting projects. Gain practical experience by solving actual business situations and by dealing with ambiguity and uncertainty inherent in fast-moving technical organizations. Develop key skills in negotiation, group dynamics, organization, and planning.

0101	Gul Branco	Seats (Total: 60)
	F 1:00pm - 3:30pm	HJP 2242

HLSA Health Services Administration Spring 2020

HLSA300 **Introduction to Health Policy and Services**

Credits: 3 Grading Method: Regular, Pass-Fail

Prerequisite: Must have completed or be concurrently enrolled in SPHL100 or PHSC300. Restriction: Must be in Public Health Science program; and must have earned a minimum of 60 credits. Credit only granted for: SPHL498P or HLSA300. Formerly: SPHL498P.

A multidimensional view of public health policy and services. Through interactive discussion of assigned readings, team-based learning, and supplementary lecture, students will learn about the nature of and development of policy, public health policy, and financing and delivery of health care services. This course will place a significant emphasis on a team-based learning approach to understanding the health care system and health care reform.

Restricted to College Park students in the Public Health Science major (code: 12140).

0101	Neil Sehgal MW 10:00am - 10:50am W 11:00am - 11:50am	Seats (Total: 20) MMH 1400 SPH 0116B	Discussion
0102	Neil Sehgal MW 10:00am - 10:50am W 12:00pm - 12:50pm	Seats (Total: 20) MMH 1400 SPH 0116B	Discussion
0103	Neil Sehgal MW 10:00am - 10:50am W 2:00pm - 2:50pm	Seats (Total: 20) MMH 1400 SPH 0116B	Discussion
0104	Neil Sehgal MW 10:00am - 10:50am W 3:00pm - 3:50pm	Seats (Total: 20) MMH 1400 SPH 0116B	Discussion
0105	Neil Sehgal MW 10:00am - 10:50am F 9:00am - 9:50am	Seats (Total: 20) MMH 1400 SPH 0116B	Discussion
0106	Neil Sehgal MW 10:00am - 10:50am F 10:00am - 10:50am	Seats (Total: 20) MMH 1400 SPH 0116B	Discussion
0107	Neil Sehgal MW 10:00am - 10:50am F 11:00am - 11:50am	Seats (Total: 20) MMH 1400 SPH 0116B	Discussion
0108	Neil Sehgal MW 10:00am - 10:50am F 12:00pm - 12:50pm	Seats (Total: 20) MMH 1400 SPH 0116B	Discussion

HLSA484 Redesigning Health Care: Developing a Clinic to Meet Community Needs

Credits: 3

Grading Method: Regular, Pass-Fail

Restriction: Must have completed a minimum of 60 credits. Additional information: Two sessions will be on-site at the Mona Clinic in Temple Hills, MD, and the remaining sessions will be taught in the University of Maryland's Academy for Innovation and Entrepreneurship.

Provides an opportunity for students to learn a key entrepreneurial skill, Design Thinking, while helping to build, reshape, redesign and transform delivery of health care in the Mona Center, a new community center and clinic in Prince George's County. This new, modern vision for a health and wellness clinic embraces student involvement in designing, planning and contributing to innovative programs, solutions, and processes to improve the clinic's ability to meet community and patient needs by addressing the social determinants of health as well as traditional clinical health status. Students in the class will develop empathy for patients, providers and other stakeholders, define problems, select a specific problem for intervention, understand problems based on stakeholder input, ideate, reframe and suggest options to solve or address the problem, prototype solutions, test ideas, and make recommendations to inform implementation and ongoing measurement and monitoring of impact.

0101	Stephen Thomas	Seats (Total: 25)
	F 9:00am - 11:30am	ESJ 2101

HLSA601 **Introduction to Health Systems**

Credits: 3

Grading Method: Regular, Audit, Sat-Fail

Management and leadership skills for effective public health planning, organization, management and administration. Emphasis is on the role of institutions in learning and behavioral change process, organizational theory, administration management, and coordinating provision of community health services.

Contact department for information to register for this course.

HLSA688 **Independent Study**

(Perm req)

Credits: 1-6

Grading Method: Regular, Audit, Sat-Fail

Master or doctoral students who desire to pursue special research problems under the direction of a faculty memeber of the department may register for 1-6 hours of credit under this number.

Contact department for information to register for this course.

HLSA689 **Field Work in Aging**

Credits: 1-6

Grading Method: Regular, Sat-Fail

Individual instruction course.

0101	Lori Simon-Rusinowitz	Seats (Total: 1)
	Contact instructor or department for details.	

HLSA709 **Graduate Seminar**

Credits: 1 Grading Method: Sat-Fail, Audit

The purpose of the course is for doctoral students to present their work on their dissertation to fellow doctoral students and faculty in an informal supportive environment. Faculty and students provide feedback and suggestions that are helpful to the presenting students.

0101	Luisa Franzini	Seats (Total: 10)
	Th 12:00pm - 1:00pm	SPH 3302E

HLSA710 **Healthcare Management: Foundations and Principles**

Credits: 3 Grading Method: Regular, Audit, Sat-Fail

Concepts and managerial activities essential to achieve the goals of health care organizations are examined and discussed. Managerial processes include planning, decision-making, etc. required to operate and change health care organizations will be discussed. Special emphasis will be placed on the leader/managers role in developing and maintaining an effective system for providing healthcare.

0101	Melvin Seale	Seats (Total: 25)
	Class time/details on ELMs	ONLINE
PLP1	Melvin Seale	Seats (Total: 10)
	Class time/details on ELMs	ONLINE
	Must be in online Health Administration program. For permission to enroll, contact oes@umd.edu.	

HLSA711 **Health Economics and Analysis**

Credits: 3 Grading Method: Regular, Audit, Sat-Fail

Provides an analysis of health and health care services as economic goods. Using microeconomic theories, we will examine the behavior of health care providers, consumers, markets, and firms.

PLH1	Aitalohi Amaize	Seats (Total: 35)
	Class time/details on ELMs	ONLINE
	Must be in Public Health Policy & Practice Program. For permission to enroll, contact oes@umd.edu.	

HLSA714 **Economic Evaluation of Medical Care**

Credits: 3 Grading Method: Regular, Audit, Sat-Fail

Prerequisite: HLSA601 and SPHL602; or students who have taken courses with comparable content may contact the department.

An overview of the theory and applications of cost-benefit analysis, cost-effectiveness analysis, and related forms of economic evaluation/decision analysis in the health care sector.

0101	Mir Ali	Seats (Total: 25)
	Tu 7:00pm - 9:45pm	SPH 0307

HLSA720 **Health Law and Ethics**

Credits: 3 Grading Method: Regular, Audit, Sat-Fail

The legal system helps determine the relationships prevailing among individuals, institutions and governments by setting out the rights, duties and powers of the various parties. This course will look at some of the more important concepts the law uses within the context of health services and public health.

PLH1	William Tilburg, Mathew Swinburne	Seats (Total: 31)
	Class time/details on ELMs	ONLINE
	Must be in Public Health Policy & Practice Program. For permission to enroll, contact oes@umd.edu.	
PLP1	William Tilburg, Mathew Swinburne	Seats (Total: 4)
	Class time/details on ELMs	ONLINE
	Must be in online Master of Health Administration program.	

HLSA721 **Using Demographic Data for Health Policy Analysis**

Credits: 3 Grading Method: Regular, Audit, Sat-Fail

Prerequisite: SPHL602; or students who have taken courses with comparable content may contact the department; or permission of instructor. Additional information: Priority enrollment will be given to students in the Department of Health Services Administration programs.

The goal of this course is to introduce students to the major demographic data sets that are used in health policy research and to provide hands-on experience using these data to answer policy oriented research questions

0101	Michel Boudreaux	Seats (Total: 20)
	Th 4:00pm - 6:45pm	ESJ B0320

HLSA723 **Health Policy Analysis and Advocacy**

Credits: 3 Grading Method: Regular, Audit, Sat-Fail

Prerequisite: HLSA601.

Examination of the politics of the health policy process, including the effects of American political structure and institutions; economic and social factors; interest groups, classes, and social movements; media and public opinion, and other factors. The emphasis is both on understanding how public policy is made as well as how to influence the process.Students will learn about (1) how health policy is developed, adopted, and implemented, (2) the political, institutional, economic, social, and other factors that influence and shape the process, and (3) the basic approaches and tools of strategic advocacy.

0101	Dylan Roby	Seats (Total: 20)
	M 4:00pm - 6:45pm	SPH 0305

HLSA740 **Healthcare Strategic Planning and Marketing**

Credits: 3 Grading Method: Regular, Audit, Sat-Fail

An understanding of strategic management and marketing is provided which enables the students to lead the process of strategic planning in a healthcare organization. By conducting a marketing and strategic planning process, health care organizations are better able to cope with dramatic changes in technological, social, political, regulatory, and competitive aspects of the health care market. Strategic management enables organizations to identify issues unique to them, which hinder or promote organizational success. Through course readings, class discussions, analyses of secondary quantitative and qualitative data, and presentation of case studies, students gain a thorough understanding of the strategic management process. Students will apply core competencies through a comprehensive strategic and marketing plan. Plans will be defended through an oral presentation.

0101	Christopher King	Seats (Total: 25)
	Tu 7:00pm - 9:45pm	SPH 0305

PLH1	Negin Fouladi	Seats (Total: 35)
	Class time/details on ELMs	ONLINE
	Restricted to students in the Master of Public Health Practice and Policy and Graduate Certificate in Principles of Public Health programs.	

HLSA766 **Foundational Readings in Health Services Research**

Credits: 3 Grading Method: Sat-Fail

Prerequisite: Completion of the six HLSA Health Services Research core courses. Restriction: Must be in Health Services Ph.D. (Doctoral) program.

An overview of the foundational papers that inform health services research and its related disciplines; including literature on key conceptual models, classic empirical studies, and research illustrating cutting edge methods or findings. The major theoretical frameworks and empirical challenges of the field will be examined through critical reading and discussion among students. The course is organized around preparation for the qualifying exam in the Health Services Ph.D. program.

0101	Michel Boudreaux	Seats (Total: 12)
	Tu 4:00pm - 6:45pm	Location: TBA

HLSA772 **Healthcare Leadership and Communications**

Credits: 3 Grading Method: Regular, Audit, Sat-Fail

Health care administrators rely on transformational leadership skills and insights to help their organizations rise to the social financial, public health, and technological challenges of the future. Students will assess and develop their leadership strengths, apply key leadership communication principles, and critically analyze relevent leadership models, exploring their utility in addressing key leadership issues in health care organizations. An underlying theme will be the identification of core values involved in health care delivery, integration of those values in personal and organizational missions, and effective communication to stakeholders.

0101	Diane Dixon	Seats (Total: 20)
	M 4:00pm - 6:45pm	SPH 0303

HLSA777 **Program Evaluation Field Experience**

Credits: 3 Grading Method: Regular, Sat-Fail

Additional information: Students will travel to the program site approximately three times to guide the evaluation design and collect data.

Program evaluation is a critical component in designing and operating effective programs. Organizations seek more accountability for the funds they provide to public or private projects. This course serves as an introduction to assessment methodology and evaluation tools commonly used in program evaluation. Students will gain practical experience through a series of exercises involving the design of a conceptual framework, development of indicators, and development of an evaluation plan to measure impact, and cost benefit/cost effectiveness analysis. The course will cover mixed methods research including qualitative and quantitative analysis, methodologies, and/or paradigms in a research study. Students will evaluate a community health program funded by the Maryland Community Health Care Commission (CHRC), and the Commission director will guide selection of the program.

0101	Lori Simon-Rusinowitz	Seats (Total: 10)
	Tu 4:00pm - 6:45pm	SPH 0307

HLSA778 **Internship in Public Health**

Credits: 1-4 Grading Method: Regular, Audit, Sat-Fail

Internship providing an opportunity to apply previously acquired knowledge and skills in a health or allied health organization. Setting of the internship will depend upon the student's background and career goals.

Internship and seminar providing an opportunity to apply previously acquired knowledge and skills in a health or allied health organization. Setting of the internship will depend upon the student's background and career goals.

Contact department for information to register for this course.

HLSA785 **Internship in Public Health**

Credits: 3 Grading Method: Regular, Audit, Sat-Fail

Prerequisite: Permission of SPHL-Health Services Administration department. Credit only granted for: HLSA785 or HLSA778.

Internship and seminar providing an opportunity to apply previously acquired knowledge and skills in a health or allied health organization. Setting of the internship will depend upon the student's background and career goals.

PLH1	Negin Fouladi	Seats (Total: 15)
	Class time/details on ELMs	ONLINE
	Restricted to students in the Master of Public Health Practice and Policy and Graduate Certificate in Principles of Public Health programs.	

HLSA786 **Capstone Project in Public Health**

(Perm req)

Credits: 3

Grading Method: Regular, Audit, Sat-Fail

Prerequisite: Permission of SPHL-Health Services Administration department.

Capstone experience provding opportunity to apply knowledge and skills to a specific public health problem or issue. Completion of project relevant to public health under the direction of an advisor.

Contact department for information to register for this course.

HLSA787 **Minority Health and Health Equity**

Credits: 3

Grading Method: Regular, Audit, Sat-Fail

Restriction: Must be in a major in SPHL-School of Public Health; or permission of instructor.

A critical analysis of historical, political, economic, social, cultural, and environmental conditions that have produced an inequitable health status for racial and ethnic minorities in the United States.

0101	Kellee White	Seats (Total: 20)
	Th 4:00pm - 6:45pm	SPH 0301

HLSA798 **HLSA Journal Club**

Credits: 1

Grading Method: Sat-Fail, Audit

The course will highlight current topics in health services research. Outside speakers will present their research in a few of the classes. For the other classes, graduate students in the HLSA programs will select important and timely articles that they will present to the class for discussion in an informal setting.

0101	Jie Chen	Seats (Total: 15)
	Th 12:00pm - 1:00pm	Location: TBA

HLSA799 **Master's Thesis Research**

(Perm req)

Credits: 1-6

Grading Method: Sat-Fail

Contact department for information to register for this course.

HLSA898 **Pre-Candidacy Research**

(Perm req)

Credits: 1-8

Grading Method: Regular, Sat-Fail

Contact department for information to register for this course.

HLSA899 **Doctoral Dissertation Research**

(Perm req)

Credits: 1-8 Grading Method: Sat-Fail

Contact department for information to register for this course.

HLSC Integrated Life Sciences Spring 2020

HLSC102 **Service-Learning in the Life Sciences**

Credits: 1 Grading Method: Regular, Pass-Fail

Prerequisite: HLSC100. Corequisite: none. Recommended: none. Restriction: Honors College Integrated Life Sciences students only. Credit only granted for: HLSC102. Formerly: not previously offered. Additional information: Service-Learning Experience Requirements: At least 25 hours of service completed with a community partner of the studentb s choosing that appeals to their personal curiosity and professional interests within the life sciences. All 25 hours must be completed with the same community partner over at least three different dates. Multiple components of reflection through the year (see below) spanning HLSC100 and HLSC102, culminating in a cumulative capstone project at the end of the experience. HLSC102 will utilize an online module to share readings, videos, and a discussion forum investigate service-learning. There are five components to the ILS service-learning requirement that span the fall and spring semesters for a cohesive first-year experience (please see attached syllabus for additional details). This spring semester courses offers a structured framework for students to investigate service-learning from both a practical and an academic perspective.

Course Description: The Integrated Life Sciences (ILS) Honors Program includes a rigorous academic curriculum, a research requirement, a living-learning component, and a service-learning experience. Service has been a tradition since 2012 and was initiated by our students, who wanted service incorporated as part of the ILS mission and values. Our students have contributed more than 6,000 hours of their time and talent to campus and local organizations, and this experiential learning has provided an opportunity to apply classroom studies to the real world. In general, these service experiences are directly relevant to their future careers as life scientists, because they contribute to improved access for all people to quality health care, to engaging STEM education, and/or to sustainable environments. The service-learning experience is introduced in the fall semester of the first year of ILS in HLSC100, and completed with a 1-credit course in the spring.

0101	Sabrina Kramer, Zabrina Anzyl, Rachel Blayney Contact instructor or department for details.	Seats (Total: 100)

HLSC322 **Principles of Genetics and Genomics**

Credits: 4 Grading Method: Regular, Pass-Fail, Audit

Prerequisite: HLSC207. Restriction: Must be in a major in UGST-HCOL-Integrated Life Sciences Program. Credit only granted for: HLSC322 or BSCI222.

Principles and mechanisms of heredity and gene expression, with a focus on the application of genomics to contemporary medicine, biotechnology, and societal issues.

0101	Leslie Pick TuTh 11:00am - 12:15pm Tu 2:00pm - 3:50pm	Seats (Total: 24) CCC 1205 LPA 1125	Discussion
0102	Leslie Pick TuTh 11:00am - 12:15pm W 5:00pm - 6:50pm	Seats (Total: 24) CCC 1205 LPA 0100	Discussion
0103	Leslie Pick TuTh 11:00am - 12:15pm Th 2:00pm - 3:50pm	Seats (Total: 24) CCC 1205 LPA 1125	Discussion
0104	Leslie Pick TuTh 11:00am - 12:15pm F 12:00pm - 1:50pm	Seats (Total: 24) CCC 1205 LPA 1125	Discussion

HLTH Health Spring 2020

HLTH106 **Drug Use and Abuse**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

An interdisciplinary analysis of contemporary drug issues and problems. The course will examine physiological, psychological, social, philosophical, historical, legal and health aspects of drug use and abuse. Special attention will be focused on those general motivations for drug use that attend life on the college campus.

0101	Kenneth Beck TuTh 12:30pm - 1:45pm	Seats (Total: 60) SPH 1303

HLTH106H **Drug Use and Abuse**

(Perm req)

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

An interdisciplinary analysis of contemporary drug issues and problems. The course will examine physiological, psychological, social, philosophical, historical, legal and health aspects of drug use and abuse. Special attention will be focused on those general motivations for drug use that attend life on the college campus.

0101	Kenneth Beck	Seats (Total: 5)
	TuTh 12:30pm - 1:45pm	SPH 1303

HLTH124 **Introduction to Behavioral and Community Health**

Credits: 1 Grading Method: Regular, Pass-Fail, Audit

Restriction: Must be in a major within the SPHL-Behavioral & Community Health department.

Required of first semester Community Health majors to expose them to introductory-level concepts within the field of behavioral and community health as well as the Community Health degree program. Includes discussion on the delivery of behavioral and community health at the local, state, national, and global levels; career opportunities in the diverse sectors of the community health field; undergraduate programmatic information; and strategies for student success.

0101	M Reynolds	Seats (Total: 80)
	M 1:00pm - 1:50pm	CCC 1100

HLTH130 **Introduction to Public and Community Health**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit CORE: SB General Education: DSHS

An introduction to the theory and practice of public and community health. The influence of public health professionals on the past, present, and future health status of society through the examination of critical health issues will be described. Programming models, theories and policy development are included.

Attendence is expected on the first day of class.

0101	Jennifer Robinson	Seats (Total: 45)
	MWF 10:00am - 10:50am	PHY 4221

HLTH140 **Personal and Community Health**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Meaning and significance of physical, mental and social health as related to the individual and to society; important phases of national health problems; constructive methods of promoting health of the individual and the community.

0101	James Butler	Seats (Total: 200)
	TuTh 9:30am - 10:45am	SPH 1312

HLTH140H **Personal and Community Health**

(Perm req)

Credits: 3

Grading Method: Regular, Pass-Fail, Audit

Meaning and significance of physical, mental and social health as related to the individual and to society; important phases of national health problems; constructive methods of promoting health of the individual and the community.

0101	James Butler	Seats (Total: 200)
	TuTh 9:30am - 10:45am	SPH 1312

HLTH200 **Introduction to Research in Community Health**

Credits: 3

Grading Method: Regular, Pass-Fail, Audit

Restriction: Must be in a major within the SPHL-Behavioral and Community Health department.

An overview of specific components and steps involved in the community health research process. Content includes, foundations of research, sampling, measurement design, and analysis in a community context.

0101	Reva Datar	Seats (Total: 75)
	MWF 2:00pm - 2:50pm	SPH 1303

HLTH230 **Introduction to Health Behavior**

Credits: 3

Grading Method: Regular, Pass-Fail, Audit

CORE: SB

General Education: DSHS

Psychological, social psychological, and sociological approaches to the following health areas: development of health attitudes and behavior, patient-provider interaction and the organization of health care.

Restricted to majors or non-majors with less than or equal to 45 credits. Students entering Fall 2018 or later: Prerequisite does not apply.

0101	Craig Fryer	Seats (Total: 75)
	TuTh 11:00am - 12:15pm	CSI 3117

HLTH234 **Global Health Messages: Understanding Exposure & Impact.**

Credits: 3

Grading Method: Regular, Pass-Fail, Audit

General Education: DSHS, DVCC, SCIS

Using a global perspective, this course teaches students to be critical consumers of current and historical health communication interventions. It also provides students with the skills to develop media interventions that target specific and general populations. Students will discover the array of diverse media messages that influence the health and well-being of individuals and communities.

0101	Dina Borzekowski	Seats (Total: 40)
	Tu 3:30pm - 6:15pm	ATL 1114

HLTH264 **Tweets & Likes: Digital Health & Social Media**

Credits: 3 | Grading Method: Regular, Pass-Fail, Audit | General Education: DSHS, SCIS

Examines the current and potential use of digital health and social media to influence public health. Provides an overview of knowledge, skills and terminology necessary to optimize the effectiveness of these technologies to contribute to the enhancement of individual and community health.

0101	Olivia Kachingwe, Amara Channell Doig	Seats (Total: 40)
	TuTh 2:00pm - 3:15pm	TYD 2108

HLTH285 **Controlling Stress and Tension**

Credits: 3 | Grading Method: Regular, Pass-Fail, Audit | CORE: IE | General Education: DSHS

Health problems related to stress and tension. Analysis of causative psychosocial stressors and intervening physiological mechanisms. Emphasis on prevention and control of stress through techniques such as biofeedback, meditation and neuromuscular relaxation.

0101	Sharon Desmond	Seats (Total: 56)
	TuTh 8:00am - 9:15am	SPH 1302

HLTH285H **Controlling Stress and Tension**

(Perm req)

Credits: 3 | Grading Method: Regular, Pass-Fail, Audit | CORE: IE | General Education: DSHS

Health problems related to stress and tension. Analysis of causative psychosocial stressors and intervening physiological mechanisms. Emphasis on prevention and control of stress through techniques such as biofeedback, meditation and neuromuscular relaxation.

0101	Sharon Desmond	Seats (Total: 56)
	TuTh 8:00am - 9:15am	SPH 1302

HLTH289 **Topical Investigations**

(Perm req)

Credits: 1-3

Grading Method: Regular, Pass-Fail, Audit

Independent study by an individual student or an experimental course in special areas of knowledge not covered by regularly scheduled courses.

Contact department for information to register for this course.

HLTH302 **Measuring Change in Community Based Research**

Credits: 3

Grading Method: Regular, Pass-Fail, Audit

Prerequisite: Minimum grade of C- in HLTH200 and EPIB301. Restriction: Must be in a major within the SPHL-Community Health Department.

Examination of research and evaluation tools that can be applied to community health promotion. Includes the application of qualitative research methods, community needs and strengths assessments, asset mapping, and monitoring and evaluating process, outcome and impact evaluation.

0101	Sharon Desmond	Seats (Total: 45)
	TuTh 9:30am - 10:45am	SPH 0302

HLTH302H **Measuring Change in Community Based Research**

Credits: 3

Grading Method: Regular, Pass-Fail, Audit

Prerequisite: Minimum grade of C- in HLTH200 and EPIB301. Restriction: Must be in a major within the SPHL-Community Health Department.

Examination of research and evaluation tools that can be applied to community health promotion. Includes the application of qualitative research methods, community needs and strengths assessments, asset mapping, and monitoring and evaluating process, outcome and impact evaluation.

0101	Sharon Desmond	Seats (Total: 5)
	TuTh 9:30am - 10:45am	SPH 0302

HLTH306 **Macro Level Influences on Community Health**

Credits: 3

Grading Method: Regular, Pass-Fail, Audit

Prerequisite: Minimum grade of C- in HLTH124. Restriction: Must be in a major within the SPHL-Behavioral & Community Health department.

An examination of the effects and influences of policy decisions at the local, state and national levels on community health delivery. Historical and contemporary policy issues will be included with a focus on how the policies have impacted community organizations and the overall health of communities.

0101	Donna Howard	Seats (Total: 40)
	TuTh 8:00am - 9:15am	SPH 0308
	Restricted to majors who entered the program Fall 2018 and later.	

HLTH306H **Macro Level Influences on Community Health**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Prerequisite: Minimum grade of C- in HLTH124. Restriction: Must be in a major within the SPHL-Behavioral & Community Health department.

An examination of the effects and influences of policy decisions at the local, state and national levels on community health delivery. Historical and contemporary policy issues will be included with a focus on how the policies have impacted community organizations and the overall health of communities.

0101	Donna Howard	Seats (Total: 5)
	TuTh 8:00am - 9:15am	SPH 0308

HLTH364 **Social Media & Digital Tools for Community & Public Health**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Prerequisite: Completion of HLTH230 with a C- or higher. Restriction: Must be in a major within the SPHL-Behavioral and Community Health department; Restricted to majors who entered the program in Fall 2018 or later.

Examination of the characteristics and uses of media platforms and digital technologies to expand the capability to identify and reduce community and public health risks at all levels of prevention. Also considered will be the potential threats these new media can play on individual choice, privacy, confidentiality, and social influence -- which themselves can pose health threats to community and public health.

Restricted to Community Health (08370) majors who entered the program in Fall 2018 or later.

0101	Sandra Saperstein	Seats (Total: 25)
	TuTh 2:00pm - 3:15pm	SPH 0307

HLTH364H **Social Media & Digital Tools for Community & Public Health**

Credits: 3

Grading Method: Regular, Pass-Fail, Audit

Prerequisite: Completion of HLTH230 with a C- or higher. Restriction: Must be in a major within the SPHL-Behavioral and Community Health department; Restricted to majors who entered the program in Fall 2018 or later.

Examination of the characteristics and uses of media platforms and digital technologies to expand the capability to identify and reduce community and public health risks at all levels of prevention. Also considered will be the potential threats these new media can play on individual choice, privacy, confidentiality, and social influence -- which themselves can pose health threats to community and public health.

0101	Sandra Saperstein TuTh 2:00pm - 3:15pm	Seats (Total: 5) SPH 0307	

HLTH366 **Behavioral and Community Issues in Public Health**

Credits: 3

Grading Method: Regular, Pass-Fail, Audit

Prerequisite: HLTH130, HLTH230, PSYC100, SOCY100, SOCY105, or ANTH260. Restriction: Must be in Public Health Science program; or permission of SPHL-Behavioral & Community Health department. And must have earned a minimum of 45 credits. Additional information: This course will initially be restricted to Public Health Science (PHSC) majors, but could ultimately be opened to other majors, particularly those in HLTH.

The exploration of how social and behavioral science theories and public health concepts and methods can be applied to both the health-illness experience and community interventions.

0101	Evelyn King-Marshall MW 2:00pm - 2:50pm Tu 9:30am - 10:20am *Restricted to Public Health Science students at College Park.*	Seats (Total: 27) ESJ 1224 SPH 0121	Discussion
0102	Evelyn King-Marshall MW 2:00pm - 2:50pm Tu 12:30pm - 1:20pm *Restricted to Public Health Science students at College Park.*	Seats (Total: 27) ESJ 1224 SPH 0121	Discussion
0103	Evelyn King-Marshall MW 2:00pm - 2:50pm W 10:00am - 10:50am *Restricted to Public Health Science students at College Park.*	Seats (Total: 27) ESJ 1224 SPH 0121	Discussion

0104	Evelyn King-Marshall MW 2:00pm - 2:50pm W 11:00am - 11:50am	Seats (Total: 24) ESJ 1224 SPH 0121	Discussion
	Restricted to Public Health Science students at College Park.		
0105	Evelyn King-Marshall MW 2:00pm - 2:50pm W 12:00pm - 12:50pm	Seats (Total: 27) ESJ 1224 SPH 0121	Discussion
	Restricted to Public Health Science students at College Park.		
0106	Evelyn King-Marshall MW 2:00pm - 2:50pm Th 9:30am - 10:20am	Seats (Total: 24) ESJ 1224 SPH 0121	Discussion
	Restricted to Public Health Science students at College Park		
ESG1	Chandria Jones Th 5:00pm - 7:30pm	Seats (Total: 35) BLD3 4206	
	Restricted to Shady Grove students in the Public Health Sciences major.		

HLTH377 **Human Sexuality**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

The biological and developmental aspects of human sexuality; the psychological and emotional aspects of sexual behavior; sexual identity; the historical, cultural, social, linguistic, legal and moral forces affecting sexual issues; the importance of communication, disclosure and intimacy in interpersonal relationships; and research trends in the area of human sexuality.

0101	Jenna Messman MW 2:00pm - 3:15pm	Seats (Total: 220) KEY 0106

HLTH377H **Human Sexuality**

(Perm req)

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

The biological and developmental aspects of human sexuality; the psychological and emotional aspects of sexual behavior; sexual identity; the historical, cultural, social, linguistic, legal and moral forces affecting sexual issues; the importance of communication, disclosure and intimacy in interpersonal relationships; and research trends in the area of human sexuality.

0101	Jenna Messman	Seats (Total: 220)
	MW 2:00pm - 3:15pm	KEY 0106

HLTH386 **Experiential Learning**

(Perm req)

Credits: 3-6 Grading Method: Regular, Pass-Fail

Prerequisite: Permission of SPHL-Behavioral & Community Health department. Restriction: Junior standing or higher.

Contact department for information to register for this course.

HLTH389 **Topical Investigations**

(Perm req)

Credits: 1-3 Grading Method: Regular, Pass-Fail, Audit

Independent study by an individual student or an experimental course in special areas of knowledge not covered by regularly scheduled courses.

Contact department for information to register for this course.

HLTH391 **Making a Difference: Applying Community Health**

(Perm req)

Credits: 3 Grading Method: Regular, Pass-Fail, Audit General Education: DSSP

Prerequisite: SPHL100, HLTH124, HLTH140, HLTH200, HLTH230, and EPIB301; and must have completed or be concurrently enrolled in HLTH302 and EPIB315. Restriction: Must be in a major within the SPHL-Behavioral and Community Health department.

The exploration and application of community health concepts including theoretical models, advocacy, cultural competency, asset mapping, and needs assessment. Includes planning, implementing and evaluating a community health program with a designated community partner.

0101	James Butler	Seats (Total: 65)
	MW 11:00am - 12:15pm	ESJ 0215

HLTH391H **Making a Difference: Applying Community Health**

(Perm req)

Credits: 3 Grading Method: Regular, Pass-Fail, Audit General Education: DSSP

Prerequisite: SPHL100, HLTH124, HLTH140, HLTH200, HLTH230, and EPIB301; and must have completed or be concurrently enrolled in HLTH302 and EPIB315. Restriction: Must be in a major within the SPHL-Behavioral and Community Health department.

The exploration and application of community health concepts including theoretical models, advocacy, cultural competency, asset mapping, and needs assessment. Includes planning, implementing and evaluating a community health program with a designated community partner.

0101	James Butler MW 11:00am - 12:15pm	Seats (Total: 5) ESJ 0215

HLTH399 **Community Health Field Work**

Credits: 1-6 Grading Method: Regular, Pass-Fail

Students will gain practical experience under conditions conducive to educational and professional development. The internship is a supervised period of community/public health activities, carried out in a relevant professional organization, that emphasizes the application of theory and previous coursework.

Contact department for information to register for this course.

HLTH420 **Effective Strategies for Public Health Practice**

(Perm req)

Credits: 3 Grading Method: Regular, Pass-Fail, Audit General Education: FSOC

Prerequisite: Minimum grade of C- in BSCI170, BSCI171, BSCI201, and HLTH391. Corequisite: HLTH490. Restriction: Must be in a major within the SPHL-Behavioral and Community Health department.

The purpose of this course is to present the interrelationships of curriculum planning, methodology and the selection and use of successful public health presentation strategies. Special problems associated with public health presentations are discussed, and students become familiar with a variety of resources as well as with planning for and implementing demonstration presentations.

0101	M Reynolds TuTh 9:30am - 10:45am	Seats (Total: 18) SPH 0303
0201	M Reynolds TuTh 11:00am - 12:15pm	Seats (Total: 18) SPH 0303
0301	M Reynolds TuTh 12:30pm - 1:45pm	Seats (Total: 18) SPH 0303

HLTH424 **Lesbian, Gay, Bisexual & Transgender Health**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Recommended: Students should have some familiarity with basic psychology, sociology and/or epidemiology. Restriction: This course is restricted to students who have completed a minimum of 60 credits. Jointly offered with HLTH624. Credit only granted for: HLTH424 or HLTH6 24.

The preparation of students to be knowledgeable advocates for the health of lesbian, gay, bisexual, and transgender (LGBT) populations. Course focus is defined by the Healthy People 2020 federal health objectives for LGBT populations: data collection for research, culturally competent healthcare, bullying in schools, suicide, homelessness, and sexually transmitted diseases including HIV.

0101	Bradley Boekeloo Th 4:00pm - 6:45pm *Restricted to HLTH students only.*	Seats (Total: 20) SPH 0302
0201	Bradley Boekeloo Th 4:00pm - 6:45pm *Restricted to PHSC students only.*	Seats (Total: 20) SPH 0302

HLTH424H **Lesbian, Gay, Bisexual & Transgender Health**

(Perm req)

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Recommended: Students should have some familiarity with basic psychology, sociology and/or epidemiology. Restriction: This course is restricted to students who have completed a minimum of 60 credits. Jointly offered with HLTH624. Credit only granted for: HLTH424 or HLTH6 24.

The preparation of students to be knowledgeable advocates for the health of lesbian, gay, bisexual, and transgender (LGBT) populations. Course focus is defined by the Healthy People 2020 federal health objectives for LGBT populations: data collection for research, culturally competent healthcare, bullying in schools, suicide, homelessness, and sexually transmitted diseases including HIV.

0101	Bradley Boekeloo Th 4:00pm - 6:45pm	Seats (Total: 20) SPH 0302
0201	Bradley Boekeloo Th 4:00pm - 6:45pm	Seats (Total: 20) SPH 0302

HLTH434 **Introduction to Public Health Informatics**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Restriction: Must be in one of the following programs (Community Health; Public Health Science) ; and must have earned a minimum of 60 credits. Credit only granted for: HLTH434 or HLTH498E. Formerly: HLTH498E.

Provides an overview of the field of public health informatics and the influence of technology on the public's health and well-being. Emphasizes the application of various technologies and computer/internet applications to support public health research and practice, including strategies to address new and emerging threats.

ESG1	Sandra Saperstein	Seats (Total: 35)
	Th 9:30am - 12:00pm	BLD3 2133
	Restricted to Shady Grove students in the Public Health Sciences major.	

HLTH471 **Women's Health**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit , D

Restriction: Must be in a major within the SPHL-Behavioral & Community Health department; or must be in a major within the ARHU-Women's Studies department. Cross-listed with WMST471. Credit only granted for: HLTH471 or WMST471.

The historical, physiological, psychological, and sociological mechanisms which contribute to women's health. Topics will include gynecological concerns and reproductive health; nutrition, exercise; violence; substance use/abuse; and the health of special populations.

Restriction: Must be in a major within SPHL-Behavioral & Community Health department; or must be in a major within ARHU-Women's Studies department. Cross-listed with WMST471. Credit granted for HLTH471 or WMST471.

0101	Michelle Jasczynski	Seats (Total: 30)
	MWF 10:00am - 10:50am	SPH 1303
	Restriction: Must be a major in Behavioral and Community Health department; or must be in a major within ARHU-Women's Studies department.	
0201	Michelle Jasczynski	Seats (Total: 45)
	MWF 10:00am - 10:50am	SPH 1303
	Restriction: Must be a Public Health Science major.	

HLTH489 **Field Laboratory Projects and Workshop**

(Perm req)

Credits: 1-6 Grading Method: Regular, Pass-Fail, Audit

A course designed to meet the needs of persons in the field with respect to workshop and research projects in special areas of knowledge not covered by regularly structured courses.

Contact department for information to register for this course.

HLTH490 **Professional Preparation in Community Health**

(Perm req)

Credits: 3

Grading Method: Regular, Pass-Fail

Prerequisite: Minimum grade of C- in BSCI170, BSCI171, BSCI201, and HLTH391. Corequisite: HLTH420. Restriction: Must be in a major within the SPHL-Behavioral and Community Health department.

The development of skills necessary for joining the public health work force post-graduation, as well as assistance in obtaining an appropriate internship that will serve as a final semester, capstone experience. Students will be exposed to various relevant professional experiences, and will be afforded the opportunity to strengthen their own individual skills by selecting from a menu of skills-based learning modules that best suit their perceived needs.

0101	Tracy Zeeger TuTh 11:00am - 12:15pm	Seats (Total: 28) SPH 0308
0201	Tracy Zeeger TuTh 12:30pm - 1:45pm	Seats (Total: 28) SPH 0308

HLTH491 **Community Health Internship**

(Perm req)

Credits: 12

Grading Method: Regular, Pass-Fail

Prerequisite: Minimum grade of C- in HLTH420 and HLTH490. Restriction: Must have completed all program requirements and be in the last semester of the Community Health degree program.

Integrating theory with practice in a community health setting.

0101	Tracy Kennedy Contact instructor or department for details. Contact instructor or department for details.	Seats (Total: 75)
SA02	Tracy Kennedy **Meets January 9, 2020 - April 25, 2020** Contact instructor or department for details.	Seats (Total: 0)

HLTH492 **BS/MPH Community Internship**

(Perm req)

Credits: 9

Grading Method: Regular, Pass-Fail

Prerequisite: Minimum grade of C- in HLTH490. Restriction: Must be a Community Health major who has been admitted to the combined BS/MPH degree program.

Integrating theory with practice in a community health setting.

0101	Tracy Kennedy	Seats (Total: 5)
	Contact instructor or department for details.	

HLTH498L **Special Topics in Health; Health Literacy**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Topics of special interest in areas not covered by regularly scheduled courses.

0101	Robert Logan	Seats (Total: 35)
	MW 2:00pm - 3:15pm	SPH 0308

HLTH609 **Public Health Journal Club**

(Perm req)

Credits: 1 Grading Method: Regular, Audit, Sat-Fail

Includes discussion of recent literature from leading peer-reviewed journals on a specific psychosocial construct and health outcome, with students presenting two articles during the semester. The purpose of this course is to read and consider health constructs and outcomes from a multidisciplinary perspective.

0101	Craig Fryer	Seats (Total: 10)
	Contact instructor or department for details.	

HLTH624 **Advanced Lesbian, Gay, Bisexual & Transgender Health**

(Perm req)

Credits: 3 Grading Method: Regular, Audit, Sat-Fail

Recommended: Students should have some familiarity with basic psychology, sociology and/or epidemiology. Credit only granted for: HLTH424 or HLTH624.

The preparation of students to be knowledgeable advocates for the health of lesbian, gay, bisexual, and transgender (LGBT) populations. Course focus is defined by the Healthy People 2020 federal health objectives for LGBT populations: data collection for research, culturally competent healthcare, bullying in schools, suicide, homelessness, and sexually transmitted diseases including HIV.

0101	Bradley Boekeloo	Seats (Total: 5)
	Th 4:00pm - 6:45pm	SPH 0302

HLTH625 **Community Assessment through Qualitative Methods**

(Perm req)

Credits: 3

Grading Method: Regular, Audit, Sat-Fail

Restriction: Course will be restricted to Behavioral and Community Health graduate students.

A discussion of major paradigms in qualitative inquiry, an overview of the process of qualitative research, and an introduction to several qualitative research methods, including grounded theory, ethnography, phenomenology, and content analysis. Students will collect, transcribe, analyze, and present qualitative data using introductory interview and analytic techniques.

0101	Elizabeth Aparicio Tu 4:00pm - 6:45pm	Seats (Total: 25) SPH 0302

HLTH653 **Quantitative Research Methods II in Public Health**

(Perm req)

Credits: 3

Grading Method: Regular, Sat-Fail

Prerequisite: HLTH652. Restriction: Must be in a major within SPHL-Behavioral & Community Health department. Credit only granted for: HLTH653 or HLTH688T. Formerly: HLTH688T.

Intermediate and advanced statistics and procedures in health-related research for doctoral students with the focus on applications of these statistical methodological methods to public health research.

0101	Min Wang M 4:00pm - 6:45pm	Seats (Total: 10) KEY 0107

HLTH665 **Health Behavior I**

Credits: 3

Grading Method: Regular, Audit, Sat-Fail

The psychological, social psychological, and sociological theories of health behavior. The relation of health knowledge, beliefs, attitudes, intentions, and behavior to preventive, illness, sick-role, and health utilization behaviors.

0101	Donna Howard Th 4:00pm - 6:45pm	Seats (Total: 25) SPH 0308

HLTH666 **Health Behavior II**

Credits: 3

Grading Method: Regular, Audit, Sat-Fail

Prerequisite: HLTH665.

An advanced course with intensive training in health behavior research and the opportunity to carry out original research in health behavior. Patient-provider interaction, patient cooperation with medical treatment and other social and psychological influences on health care.

0101	Barbara Curbow	Seats (Total: 12)
	W 4:00pm - 6:45pm	SPH 0301

HLTH671 **Public Health Communication**

(Perm req)

Credits: 3 Grading Method: Regular, Audit, Sat-Fail

Restriction: Non-SPH students must obtain permission from the instructor prior to registering. Credit only granted for: HLTH670 or HLTH671 and HLTH672. Formerly: HLTH670.

An exploration of the the broad and diverse field of health communication including medical encounters, everyday communication about health, advertising, news, public health campaigns, community outreach, public policy, and international programs. Theories and applied efforts that have been studied and documented will be examined.

0101	Devlon Jackson	Seats (Total: 12)
	W 4:00pm - 6:45pm	SPH 0307

HLTH688 **Special Problems in Health Education**

(Perm req)

Credits: 1-6 Grading Method: Regular, Audit, Sat-Fail

Contact department for information to register for this course.

HLTH688D **Special Problems in Health Education; Introduction to Systems Science in Population Health**

Credits: 3 Grading Method: Regular, Audit, Sat-Fail

Prerequisites: Minimum grade of B- in SPHL602/EPIB 610 or permission of instructor. Many public health interventions fall short of their goals because they are developed in piecemeal fashion rather than comprehensively and from a whole-system perspective. Systems science frameworks have been presented as an approach to improve the practice of public health by focusing on component parts of a system in the context of relationships with each other and other systems. The goal of this course is to advance all students' systems science capacity, enabling them to become better consumers of literature and collaborators on interdisciplinary systems science teams. Student will develop their ability to identify and describe the underlying mechanisms of persistent and emerging public health problems such as the opioid epidemic, environmental injustices and infectious disease outbreaks using systems frameworks. Instructional methods for this course include lectures, readings, in-class exercises, class participation, oral presentations and writing assignments. This course will also use AnyLogic (Personal Learning Edition), a free modeling software program, to examine the dynamics of underlying system causal structures and feedbacks.

0101	Sharon Desmond, Devon Payne-Sturges W 1:00pm - 3:45pm	Seats (Total: 20) SPH 0227

HLTH711 **Advanced Research Methods in Health**

(Perm req)

Credits: 3 Grading Method: Regular, Audit, Sat-Fail

Prerequisite: HLTH710. Restriction: Must be in MPH: Community Health Education (Master's) program; or must be in Ph.D.: Public and Community Health (Doctoral) program.

Quantitative techniques, advanced research methods and design issues.

0101	Kerry Green Th 4:00pm - 6:45pm	Seats (Total: 10) SPH 1234A

HLTH742 **Professional Writing and Presentations**

Credits: 3 Grading Method: Regular, Sat-Fail

Restriction: Must be in MPH: Community Health Education (Master's) program; or must be in Ph.D.: Public and Community Health (Doctoral) program. Credit only granted for: HLTH742 or HLTH688W. Formerly: HLTH688W.

Acquaints students with various types of professional writing required of public health professionals, including: grant proposals; journal articles; textbooks; presentation proposals and papers; and theses and dissertations. Includes both the form and content of technical documents as well as the processes of writing, peer review, and critique.

0101	Cheryl Knott Class time/details on ELMs	Seats (Total: 10) ONLINE

HLTH778 **Internship in Public Health**

Credits: 1-4 Grading Method: Regular, Sat-Fail

Internship and seminar providing an opportunity to apply previously acquired knowledge and skills in a health or allied health organization. Setting of the internship will depend upon the student's background and career goals.

0101	Evelyn King-Marshall	Seats (Total: 10)
	M 7:00pm - 9:45pm	SPH 0301

HLTH785 **Internship in Public Health**

(Perm req)

Credits: 3 Grading Method: Regular, Sat-Fail

Prerequisite: HLTH665, HLTH775, and HLTH780; or permission of SPHL-Behavioral & Community Health department. Credit only granted for: HLTH785 or HLTH778.

Internship and seminar providing an opportunity to apply previously acquired knowledge and skills in a health or allied health organization. Setting of the internship will depend upon the student's background and career goals.

0101	Evelyn King-Marshall	Seats (Total: 8)
	Meets January 27, 2020 - May 3, 2020	
	M 7:00pm - 9:00pm	SPH 0301
	Contact instructor or department for details.	

HLTH786 **Capstone Project in Public Health**

(Perm req)

Credits: 3 Grading Method: Regular, Audit, Sat-Fail

Prerequisite: Must have completed all required coursework; and permission of SPHL-Behavioral & Community Health department. Restriction: Must be in a major within SPHL-Behavioral & Community Health department.

Capstone experience providing opportunity to apply knowledge and skills to a specific public health problem or issue. Completion of project relevant to public health under the direction of an advisor.

Contact department for information to register for this course.

HLTH799 **Master's Thesis Research**

(Perm req)

Credits: 1-6 Grading Method: Sat-Fail

Contact department for information to register for this course.

HLTH898 **Pre-Candidacy Research**

(Perm req)

Credits: 1-8 Grading Method: Regular, Sat-Fail

Contact department for information to register for this course.

HLTH899 **Doctoral Dissertation Research**

(Perm req)

Credits: 6 Grading Method: Sat-Fail

Contact department for information to register for this course.

HONR Honors Spring 2020

HONR208D **Honors Seminar; Insect Biodiversity: The Good, the Bad, and the Weird**

Credits: 3 Grading Method: Regular, Pass-Fail General Education: DSNS

0101	William Lamp	Seats (Total: 16)
	MW 11:00am - 12:15pm	PLS 1161

HONR208L **Honors Seminar; Justice Matters: Law, Literature, and Film**

Credits: 3 Grading Method: Regular, Pass-Fail General Education: DSHU, SCIS

0101	Sara Schotland	Seats (Total: 20)
	TuTh 11:00am - 12:15pm	EGR 2116

HONR208P **Honors Seminar; Tolkien:Mythmaker**

Credits: 3 Grading Method: Regular, Pass-Fail General Education: DSHU

0101	Ingrid Satelmajer	Seats (Total: 20)
	TuTh 11:00am - 12:15pm	ANA 0120

HONR209G **Honors Seminar; Elements of Drawing for Non-Majors**

Credits: 3 Grading Method: Regular, Pass-Fail General Education: DSSP

Students must pay a $40.00 studio lab fee.

0101	Patrick Craig TuTh 12:30pm - 3:00pm *There is a $40.00 lab fee for this course.*	Seats (Total: 16) ASY 2315

HONR209W **Honors Seminar; War Stories: Personal Narratives, Fiction, and Film**

Credits: 3 | Grading Method: Regular, Pass-Fail | General Education: DSHU, SCIS

0101	Sara Schotland Tu 2:00pm - 4:30pm	Seats (Total: 20) PLS 1158

HONR218A **'Furies from Hell' to 'Femi-Nazis': A History of Modern Anti-Feminism**

Credits: 3 | Grading Method: Regular, Pass-Fail | CORE: LS | General Education: DSHS, DVUP

Women have faced a deep antipathy at nearly every turn in their struggles for civic and social inclusion. These denials of women's rights often take the form of commentaries--sometimes vicious ones--about women's general natures, bodies, and fitness for public life. Women are consistently tagged with various labels of otherness: opponents of women's rights deem them irrational, unnatural, traitors to society, even sexual deviants. This course will examine the dangers that women allegedly represent to social stability from the Enlightenment to today, as well as how women have fought back to assert their rights and independence.

0101	Kelly Colvin M 2:00pm - 4:30pm	Seats (Total: 20) SQH 1121
0201	Kelly Colvin Tu 2:00pm - 4:30pm	Seats (Total: 20) WDS 1114

HONR218E **'Naturally Chic': Fashion, Gender, & Nationalism in French History**

Credits: 3 | Grading Method: Regular, Pass-Fail | CORE: HO | General Education: DSHS, DVCC

Allegedly uttered by Louis XIV, the Sun King, this statement exposes the importance of fashion to French history. Indeed from its very beginnings, the fashion industry in France has been synonymous with the international reputation of the entire nation. Similarly, being "chic," or having an innate sense of discernment and style, became synonymous with French femininity. This seminar will explore the interconnectivity of the history of fashion design in France, the requirements it placed on French women, and the international reputations and pressures the fashion industry has shouldered since the French Revolution. We will look at how fashion reflected and created the moods of various historical periods, including the designs of Coco Chanel in the 1920s and Christian Dior in the 1950s, and we will also see how French women's national belonging has been innately tied to their ability to display French fashion.

0101	Kelly Colvin W 2:00pm - 4:30pm	Seats (Total: 20) SQH 1103
0201	Kelly Colvin Th 2:00pm - 4:30pm	Seats (Total: 19) WDS 1127

HONR218F **Keeping It Real: Art & the Representation of Reality**

Credits: 3 | Grading Method: Regular, Pass-Fail | CORE: HO | General Education: DSHS, DSHU, DVUP

Why bother depicting daily life in art, literature, film, or television? At first glance, nothing could be more boring: ordinary reality surrounds us, so why make it an object of art? Yet for the last several centuries, everyone from the Grand Masters of high art to radically colloquial poets, reality TV producers, and Instagram aficionados have attempted to capture what it feels like to inhabit reality in the modern age. In this class, we will ask questions like: is it possible to document reality, and where does reality meet perception? What counts as ordinary? And what forms of experience are deemed "authentically" real? We will analyze both classical literary realism and a wide variety of subsequent movements--Naturalism, Modernism, magical realism, "hysterical realism," and peripheral realisms--that inherited, rejected, or adapted its assumptions and conventions. We will read two long novels alongside many works of short fiction, poetry, and criticism. In addition, we will explore the surprising tenacity of the realist mode in more recent popular genres like cinematic neorealism, documentaries, sitcoms, reality television, and contemporary visual culture and social media.

0101	Jesse Cordes Selbin M 12:30pm - 3:00pm	Seats (Total: 20) HBK 1108

HONR218G **Why and How We Read**

Credits: 3 | Grading Method: Regular, Pass-Fail | , D | General Education: DSHS, DVUP

Reading is one of the first things we teach children and is often seen as an essential skill of modern life. Why is that? What happens when we read, and why do we do it? How does reading for pleasure differ from the reading we do in school, online, or on the go? As we will see, debates still rage not just about why we read, but about who reads, and when and where and how they do it. This course explores how people have read historically and across cultures, from ancient scroll interpreters to modern book-nerds. Together, we will analyze specific reading methods that are commonly held to build skills like critical thinking, and we will ask how different disciplines read. We will also investigate why reading has long been understood as a liberating activity that enables its practitioners to flourish and, finally, we will ask whether a world mediated by text presents problems for those who lie outside its scope.

0101	Jesse Cordes Selbin TuTh 12:30pm - 1:45pm	Seats (Total: 20) ESJ B0320

HONR218I **It Happened To Me - Truth, Lies, & Discovery in Memoir**

Credits: 3 | Grading Method: Regular, Pass-Fail | CORE: HL, D | General Education: DSHU, DVUP

How good is your memory? Remembering is a tricky process that can change based on how long ago an event happened and our relationship to it. From recalling an early personal memory to participating in cultural memories, our memories can even disagree with other people's. Do you trust the memory of someone who was there when it happened, or a historian who pieces together facts from multiple accounts and objects years later? In this course you will be challenged to explore stories in which memories disagree, traumatic childhoods are forgotten, generational memories morph over time, and memories can be false or created.

0101	Margaret Elwell MW 2:00pm - 3:15pm	Seats (Total: 20) KEY 0119
0201	Margaret Elwell MW 3:30pm - 4:45pm	Seats (Total: 20) KEY 0120

HONR218J **Honors Seminar; Sustainability and Development: From the Individual to the Global**

Credits: 3 | Grading Method: Regular, Pass-Fail | General Education: DSHS, SCIS

0101	Dorith Grant-Wisdom TuTh 11:00am - 12:15pm	Seats (Total: 20) TWS 0201

HONR218M **Honors Seminar; Elements of Music Composition for Non-Majors**

Credits: 3 | Grading Method: Regular, Pass-Fail | General Education: DSSP

0101	William Evans Tu 2:00pm - 4:30pm	Seats (Total: 18) PAC 1108

HONR218N **Suffering and Its Resistance**

Credits: 3 | Grading Method: Regular, Pass-Fail | CORE: LS | General Education: DSHU, DVUP

When Freddie Gray was killed in 2015, citizens of Baltimore took to the streets. News agencies from all over the world covered the protests as people demanded justice. Five years later, corruption and violence remain a problem, while the city's murder rate has climbed to one of the highest per capita in the U.S. What did the calls for justice accomplish? What good is protesting? And how do we respond to suffering amidst historical causes, intergenerational resonances, and uneven distribution? By investigating these questions, this course seeks to understand the relationships between power and injustice and to find the connections among resistance, empathy, and hope.

0101	Margaret Elwell TuTh 2:00pm - 3:15pm	Seats (Total: 20) EGR 1102
0201	Margaret Elwell TuTh 3:30pm - 4:45pm	Seats (Total: 20) EGR 1110

HONR218O **Wild and Wasted: Nature in Film and TV**

Credits: 3 | Grading Method: Regular, Pass-Fail | CORE: HL | General Education: DSHU, DSSP

The gaze of the camera lens is one of the most powerful and ubiquitous ways that we experience nature. It is a medium filled with potential for insight, empathy, and conservation; it is also fraught with misrepresentation and exploitation. For the first half of class, we will examine and critique nature in film and TV through three genres: Wildlife and Slow Film, Documentary, and Big Hollywood. Through these units we will gather a sense of how media both supports and masks ecological realities, how indigenous others are represented by colonizing explorers, how nature is depicted variously as resource, wilderness, and acculturated playground, and the differences in focus and effect between niche-market and popular films. The second half of class will be the filmmaking portion. In groups of 4-5, students will collaborate to produce a short film, either narrative or documentary, that may have a thematic focus such as food, habitat, transportation, or waste. Groups will draft and revise a short screenplay, and set up the locations, interviews, and any other simple elements of production they might need. Each group will then produce and finish a short film of ~5 minutes in length and present it to the class. Exceptional work may merit additional support to enter the film into festivals.

0101	Heidi Scott TuTh 2:00pm - 3:15pm	Seats (Total: 20) KEY 0124

0201	Heidi Scott	Seats (Total: 20)
	TuTh 12:30pm - 1:45pm	KEY 0123

HONR218P **Honors Seminar; Immigration: Personal Stories and Policy Changes**

Credits: 3 | Grading Method: Regular, Pass-Fail | General Education: DSHU, DVUP, SCIS

0101	Sara Schotland	Seats (Total: 20)
	Th 2:00pm - 4:30pm	CHM 0119

HONR218T **Honors Seminar; Political Theater: On Stage and in Washington**

Credits: 3 | Grading Method: Regular, Pass-Fail | General Education: DSHU

Students must contribute $20.00 toward theater ticket purchases.

0101	Nelson Pressley	Seats (Total: 20)
	TuTh 9:30am - 10:45am	ANA 0120

HONR218W **The Idea of Crime**

Credits: 3 | Grading Method: Regular, Pass-Fail | CORE: SB | General Education: DSHS, SCIS

0101	John Laub	Seats (Total: 20)
	M 2:00pm - 4:30pm	LEF 2165E

HONR219D **On Beyond Dinosaurs: Patterns and Enigmas in Vertebrate Evolution**

Credits: 3 | Grading Method: Regular, Pass-Fail | CORE: PS | General Education: DSNS, SCIS

0101	John Merck	Seats (Total: 20)
	TuTh 12:30pm - 1:45pm	ATL 1106

HONR219M **Honors Seminar; Why Do We Do What We Do? The Role of Motivation in People's Achievements and Choices**

Credits: 3 | Grading Method: Regular, Pass-Fail | General Education: DSHS

0101	Allan Wigfield TuTh 2:00pm - 3:15pm	Seats (Total: 20) TWS 1321

HONR219T **Honors Seminar: Surviving Natural Disasters: Learning from Hurricane Katrina, Big Earthquakes, and Other Natural Hazards**

Credits: 3 | Grading Method: Regular, Pass-Fail | CORE: IE | General Education: DSSP, SCIS

0101	Lewis Link M 2:00pm - 4:30pm	Seats (Total: 20) MTH 0402
0201	Lewis Link M 11:00am - 1:30pm	Seats (Total: 20) LEF 1222

HONR219W **Honors Seminar; Africa and the Global Criminal Economy**

Credits: 3 | Grading Method: Regular, Pass-Fail | General Education: DSHS, DVUP, SCIS

0101	Julie Silva, Keith Yearwood MW 3:00pm - 4:15pm	Seats (Total: 20) JMZ 1103

HONR228T **Honors Seminar; Journalism and Peace**

Credits: 3 | Grading Method: Regular, Pass-Fail

0101	Colman McCarthy M 12:00pm - 2:30pm	Seats (Total: 20) ANA 0120

HONR229K **Honors Seminar; Achieving Justice and Equality in the 21st Century: Problems, Policies and Practices**

Credits: 3 | Grading Method: Regular, Pass-Fail | General Education: DSHS, DVUP, SCIS

0101	Cecily Hardaway TuTh 12:30pm - 1:45pm	Seats (Total: 20) SQH 1111

HONR229R **Honors Seminar; Short Texts, Great Ideas: The Essay Form**

Credits: 3 | Grading Method: Regular, Pass-Fail | General Education: DSHU, SCIS

0101	Gregory Bucher MW 2:00pm - 3:15pm	Seats (Total: 20) LEF 1201

HONR229W **Honors Seminar; Revenge of the Funny Women**

Credits: 3 | Grading Method: Regular, Pass-Fail | General Education: DSHU, DVUP

0101	Heidi Scott MW 12:30pm - 1:45pm	Seats (Total: 20) HBK 0108
0201	Heidi Scott MW 2:00pm - 3:15pm	Seats (Total: 20) HBK 0108

HONR238C **The Future of Energy and Climate Policy**

Credits: 3 | Grading Method: Regular, Pass-Fail | CORE: IE | General Education: DSSP

0101	Tyson Slocum W 3:00pm - 5:30pm	Seats (Total: 20) HBK 1112

HONR238G **Honors Seminar; The Manhattan Project: A Century of Radioactivity, Nuclear Weapons, and Nuclear Power**

Credits: 3 | Grading Method: Regular, Pass-Fail | General Education: DSNS, SCIS

0101	William Walters TuTh 2:00pm - 3:15pm	Seats (Total: 20) MTH 0402

HONR238R **Honors Seminar: Terrorism**

Credits: 3 | Grading Method: Regular, Pass-Fail | CORE: SH | General Education: DSHS

0101	Howard Smead M 4:00pm - 6:30pm	Seats (Total: 20) TLF 1103

HONR239A **Honors Seminar; Constructing and De-Constructing the Colonial Chesapeake**

Credits: 3 | Grading Method: Regular, Pass-Fail | General Education: DSHS, DSSP, SCIS

0101	Dennis Pogue	Seats (Total: 20)
	W 2:00pm - 4:30pm	ARC 1117

HONR239C **Honors Seminar: The Creative Process in Dance**

Credits: 3 | Grading Method: Regular, Pass-Fail | CORE: HA, D | General Education: DSHU

0101	Crystal Davis	Seats (Total: 20)
	TuTh 2:00pm - 3:15pm	PAC 1610

HONR239J **Honors Seminar; "Enemy of the People": When Journalism Investigates the Powerful**

Credits: 3 | Grading Method: Regular, Pass-Fail | General Education: DSHS, SCIS

Credit will only be granted for HONR239J or JOUR289P.

0101	Mark Feldstein	Seats (Total: 20)
	Tu 2:00pm - 4:30pm	KNI 1206

HONR239Q **Honors Seminar; Visual and Verbal Representation in Art: Chinese Poetry, Calligraphy, and Painting**

Credits: 3 | Grading Method: Regular, Pass-Fail

Credit only granted for HONR239Q or HHUM205.

0101	Jason Kuo	Seats (Total: 20)
	M 1:00pm - 3:30pm	ESJ B0320

HONR239V **Honors Seminar; Visual Storytelling**

Credits: 3 | Grading Method: Regular, Pass-Fail

0101	Timothy Jacobsen	Seats (Total: 18)
	F 9:00am - 11:30am	KNI 1101

HONR239Z **Honors Seminar; Applying Reason to Passion: The Philosophy of Sex**

Credits: 3 | Grading Method: Regular, Pass-Fail | General Education: DSHU

0101	Hallie Liberto	Seats (Total: 20)
	W 2:00pm - 4:30pm	ANA 0120

HONR248J **Honors Seminar; A Most Human Nation**

Credits: 3 | Grading Method: Regular, Pass-Fail | General Education: DSHU, DVUP, SCIS

Students who have taken HHUM205 should contact the instructor for permission.

0101	Ingrid Satelmajer	Seats (Total: 20)
	TuTh 2:00pm - 3:15pm	TWS 1313

HONR248V **Music and Poetry: Sound and Sense**

Credits: 3 | Grading Method: Regular, Pass-Fail | CORE: HO, D | General Education: DSHU, SCIS

How is the physical experience of existence expressed in works of art? This course will explore the shared aspects of music and poetry that relate to the nature of human cognition and the philosophy of embodiment, which proposes that metaphor is one of the primary ways we "translate" bodily knowledge into thought to create abstract concepts (ex.: "negotiation is a tool"). A fundamental technical vocabulary for the discussion of form in music and poetry will be developed and used in considering the various metaphors under discussion (movement, time, space, texture). In addition to direct experience with metaphor in musical works and poetry, translation as a process will also be considered as a metaphor for the ways that music and poetry relate to one another in light of the role embodiment plays in language, music and poetry.

0101	Robert Gibson	Seats (Total: 20)
	W 2:00pm - 4:30pm	PAC 2164

HONR249B **Honors Seminar; London and British Empire, 1500-1850**

Credits: 3 | Grading Method: Regular, Pass-Fail, Audit

Contact department for information to register for this course.

HONR249G **Honors Seminar; How Do You "Man Up?": Men, Masculinity, and Mental Health**

Credits: 3 | Grading Method: Regular, Pass-Fail

0101	Monica Kearney	Seats (Total: 20)
	TuTh 3:30pm - 4:45pm	KEY 0125

HONR249L **The Historical Development of London**

Credits: 3 | Grading Method: Regular, Pass-Fail | CORE: SH

Contact department for information to register for this course.

HONR258A **Honors Seminar; Renewing the Body: The Science Behind Regeneration and Immortality**

Credits: 3 | Grading Method: Regular, Pass-Fail | General Education: DSSP

0101	Alexandra Bely	Seats (Total: 20)
	TuTh 11:00am - 12:15pm	BPS 2249

HONR258B **"Watch Out! Calm Down." The Goals of Risk Communication**

Credits: 3 | Grading Method: Regular, Pass-Fail | CORE: SH, D | General Education: DSHU

You're working at the FDA, and you receive a preliminary report stating that Mad Cow Disease may have compromised a major beef distributor's supply. More tests need to be run to be sure, and the full report will take about two weeks. Do you wait for the full report, not wanting to start a panic? Or do you warn the public, even though the scare might not pan out? If you do warn the public, how do you communicate the findings of the report? People's lives and millions of dollars are on the line: what do you do? The right messages to the right people at the right time can save lives, and risk communication helps us think about how to convey sensitive messages about crucial issues from public health, to technological accident, to natural disaster. We will cover current thinking about the nature of risk, risk perceptions, theoretical perspectives on risk communication, and appliation of these theories to risk events in its real-life context. For example, we will examine such questions as: "Why do people continue to smoke despite knowing the health risks with the habit?," "Why people choose not to leave a high-risk environment, e.g., voluntary evacuation areas prepare for possibility of Hurricane Dorian?," "What are the most effective things the government/local leaders can do to get them out of harm's way?," and "How can we communicate controversial science effectively?"

0101	Ji Youn Kim	Seats (Total: 20)
	Tu 2:00pm - 4:30pm	ANA 0120

HONR258D **Stage, Screen, Life: a Cultural History of Drag**

Credits: 3 | Grading Method: Regular, Pass-Fail | General Education: DSHU

What does "drag" conjure in your imagination? What about "cross-dressing," "dandyism," "transvestism," "glamor drag," "drag king," "drag queen," "boy actress," "transsexual," "FTM," MTF," "genderqueer, and "gender dysphoria?" Do you know someone who fits one or more of these categories? Do you picture certain celebrities? Have you been to a drag club (kings or queens) or seen films that depict drag? Have you seen a cross-dressed production of Hamlet or Oedipus? We tend to associate "drag" with gender, sex, and sexual orientation, but have you also considered race, ethnicity, and class as sites of drag performance? If you've seen/read/done/considered any of these, were you shocked and dismayed? Intrigued? What questions arose for you? This class is intended to explore some of them with--and perhaps address some of them for--you.

0101	Catherine Schuler	Seats (Total: 20)
	Class time/details on ELMs	ONLINE

HONR258E **Honors Seminar; Creating the Future through Systemic Thinking and Design**

Credits: 3 Grading Method: Regular, Pass-Fail General Education: DSSP

0101	Gerald Suarez	Seats (Total: 20)
	MW 3:30pm - 4:45pm	ASY 3207

HONR258P **Honors Seminar; The Mathematics of Democracy**

Credits: 3 Grading Method: Regular, Pass-Fail

0101	Rodrigo Trevino	Seats (Total: 20)
	TuTh 9:30am - 10:45am	MTH B0429

HONR259J **Dreams and Journey: Literature, Pluralism, and Democracy in America**

Credits: 3 Grading Method: Regular, Pass-Fail CORE: HA General Education: DSHU

A society's literature provides a fascinating window into the aspirations and priorities of its people. This course uses works of literature as primary documents to gain insight into major themes, trends, and ideas in American history, with a special focus on the conflicting visions of the "American Dream" and ways in which diverse Americans embarked on journeys in pursuit of that dream. Through a thorough analysis of these books and contextualization of the works within their historical setting, we will assess how contemporary Americans understood and reacted to important historical controversies within a pluralistic democracy, and how key social, cultural, and political issues were interrogated and contested in literature as well as the broader society.

0101	Robert Chiles	Seats (Total: 20)
	Th 6:00pm - 8:30pm	KEY 0121

HONR268G **The Science of Birdwatching**

Credits: 3	Grading Method: Regular, Pass-Fail	CORE: HO	General Education: DSSP

In this course you will learn the skill of birdwatching (or "birding") and will contribute your observations to a world database of sightings that help establish trends in overall bird populations. Birding (and bird feeding) is one of the most popular pastimes in the United States, with tens of billions of dollars spent annually by enthusiasts. Birds also tell us about the health of our natural environment: by noting where birds are, and where they are absent, scientists can learn about harmful changes to our world ecosystem and how to reverse them. We can help out by becoming responsible citizen scientists. This course will feature regular field trips to observe birds in their natural habitats. No prior birding experience is needed.

0101	Derek Richardson	Seats (Total: 20)
	M 2:00pm - 4:30pm	PLS 1146

HONR268L **Honors Seminar: United States Immigration Issues**

Credits: 3	Grading Method: Regular, Pass-Fail	CORE: SB, D	General Education: DSHS, DVUP, SCIS

0101	Dorith Grant-Wisdom	Seats (Total: 20)
	TuTh 2:00pm - 3:15pm	PLS 1146

HONR268Z **Honors Seminar; Catastrophic Animal and Human Disease Outbreaks: What Else Can We Do To Prevent Them?**

Credits: 3	Grading Method: Regular, Pass-Fail	General Education: DSSP, SCIS

Credit may only be granted for HONR268Z or ANSC277.

0101	Nathaniel Tablante	Seats (Total: 20)
	TuTh 12:30pm - 1:45pm	TWS 1321

HONR269G **Honors Seminar; Hungry, Hot and Crowded: Global Challenges in the 21st Century**

Credits: 3	Grading Method: Regular, Pass-Fail	General Education: DSHS, SCIS

Credit granted only for HONR269G or HONR229A.

0101	Kathleen Mogelgaard	Seats (Total: 20)
	W 6:00pm - 8:30pm	KEY 0117

HONR269L **Honors Seminar; Cracking the Secrets of the Universe Using Computers: Re-discovering the Higgs & Searching for Invisible Matter-Part II**

(Perm req)

Credits: 3 | Grading Method: Regular, Pass-Fail | General Education: DSNS, DSSP, SCIS

The second part of a two-semester Honors research seminar. Part one of this series was offered in the Fall 2018 semester. For permission to enroll, please contact Dr. Shabnam Jabeen at Jabeen@umd.edu.

0101	Sarah Eno, Shabnam Jabeen TuTh 11:00am - 12:15pm	Seats (Total: 20) PHY 3301

HONR269T **Honors Seminar: Understanding U.S. Foreign Policy toward Afghanistan**

Credits: 3 | Grading Method: Regular, Pass-Fail | CORE: SB, D | General Education: DSHS, SCIS

0101	Temim Nusraty Th 6:30pm - 9:00pm	Seats (Total: 10) ANA 0120
	This is a Global Classroom course. There will be approximately 4 or 5 weeks where this course will meet on Sundays for teleconferencing meetings with students in Kabul, Afghanistan instead of meeting at its normal weekly time on Thursday nights (exact dates TBA).	

HONR269U **Honors Seminar; Hidden Figures: Race, Science, and Black Narrative**

Credits: 3 | Grading Method: Regular, Pass-Fail | General Education: DSHU, DVUP

0101	Mary Washington TuTh 12:30pm - 1:45pm	Seats (Total: 20) TWS 3136

HONR278D **Honors Seminar; National Security Dilemmas**

Credits: 3 | Grading Method: Regular, Pass-Fail | General Education: DSHS, SCIS

0101	Daniel Rosenthal M 7:00pm - 9:45pm	Seats (Total: 20) ESJ B0320

HONR278G **Honors Seminar; Exploring How Foreign Policy is Developed**

Credits: 3 | Grading Method: Regular, Pass-Fail | General Education: DSHS

0101	Temim Nusraty M 6:30pm - 9:00pm	Seats (Total: 20) ANA 0120

HONR279N **Honors Seminar; Disease, Disaster, and Development**

Credits: 3 | Grading Method: Regular, Pass-Fail

0101	Robert Sprinkle Tu 5:00pm - 7:30pm	Seats (Total: 20) VMH 1107

HONR279Y **Honors Seminar; Language and Thought: Insights from Brain Damage, Neuroimaging and Bilingualism**

Credits: 3 | Grading Method: Regular, Pass-Fail | General Education: DSNS

0101	Jared Novick TuTh 2:00pm - 3:15pm	Seats (Total: 20) CHE 2116

HONR288A **Honors Seminar; Power, Representation, and Public Policy**

Credits: 3 | Grading Method: Regular, Pass-Fail | General Education: DSHS

0101	David Karol TuTh 12:30pm - 1:45pm	Seats (Total: 20) TYD 1114

HONR288O **Honors Seminar: Why Do Things Fail?**

Credits: 3 | Grading Method: Regular, Pass-Fail | CORE: PS | General Education: DSNS, SCIS

Restriction: This course is for non-engineering majors only.

0101	Timothy Foecke MWF 1:00pm - 1:50pm	Seats (Total: 20) PHY 4222

HONR289P **Honors Seminar; How Do Innovators Think?**

Credits: 3 | Grading Method: Regular, Pass-Fail | General Education: DSSP, SCIS

Credit only granted for BMGT289B or HONR289P. Course will meet 6 times on Monday evenings for assessments and guest speaker presentations.

0101	Mark Wellman W 5:00pm - 6:15pm M 6:30pm - 9:15pm	Seats (Total: 20) CCC 1105 VMH 1212

HONR298J **Honors Seminar; A Century of Smashing Atoms: Particle Accelerators, the Engines of Discovery**

Credits: 3 | Grading Method: Regular, Pass-Fail | General Education: DSNS, SCIS

0101	Timothy Koeth TuTh 12:30pm - 1:45pm	Seats (Total: 20) PLS 1146

HONR299G **Revolution, Regret, and Reform: The People and Principles of the American Political Tradition**

Credits: 3 | Grading Method: Regular, Pass-Fail | General Education: DSHS

This course explores American political history from Independence through the present day. It interrogates the roots of American political ideas, the dynamics of partisan competition, the interaction of class, ethnicity, race, and politics, the evolution of policy preferences, the growth of the state, and the transformation of grassroots expectations and ambitions, among other important themes. By exploring the writings of major figures as well as the preferences of anonymous voters--and everyone in between, this course will help students identify the overarching themes and the important forgotten moments in our nation's political development. Students will end the semester armed with a mastery of this history, an understanding of the methods of political historians and scholars in related fields, and a contextualization of our contemporary political world.

0101	Robert Chiles MW 12:30pm - 1:45pm	Seats (Total: 20) TWS 1106

HONR299K **Honors Seminar; Global Governance or World Government?**

Credits: 3 | Grading Method: Regular, Pass-Fail | General Education: DSSP, SCIS

0101	Kate Seaman Tu 2:00pm - 4:30pm	Seats (Total: 20) MOR 1101

HONR348J **Contemporary Social Issuses**

Credits: 3 | Grading Method: Regular, Pass-Fail | General Education: DVCC

This country is starting to feel like Bizarro World. Not only are we deeply divided culturally, politically, racially, economically, geographically, religiously, and perhaps spiritually, we have a president who defies norms with apparent relish. He lies blithely, attacks people with schoolyard epithets, picks fights with friendly leaders and sucks up to our antagonists. Plus, he has completely uprooted his political party and seems more committed to strongman rule than traditional conservatism. And despite his checkered relationship with personal morality, his strongest supporters are Evangelical Christians, while also drawing support from the proto-fascist ultra right-wing white supremacists. , Next year's presidential election promises to be contentious, possibly beyond our worst fears in which those differences may play out violently, as predicted by President Trump. Judging from the vituperation coming from the President and his supporters, it would seem that the cultural and political divisions are reaching ever deeper into our national psyche. These divisions extend beyond liberal vs. conservative to gender, birth status, culture, social class, morality, belief in God, to what America stands for and what it means to be American. They embrace our conflicting visions of what our country is, its values, and where it is headed. And where it should be headed., , With low confidence in government and the news media, called 'fake news' by Trump, who still occasionally threatens to jail Hilary Clinton. Most of his own Republican party appear to be afraid of him. Fear and anger seem to be the words of the day. Not only in Congress but also in the cultural conflicts that have plagued the country in recent times., , The Supreme Court has affirmed gay rights, including the right to marry, but resistance to this is bitter. And is poised to end abortion in many states despite the fact that a slim majority of the population supports the fundamental right of a wo

0101	Howard Smead W 4:00pm - 6:30pm	Seats (Total: 20) TLF 1101

HONR348L **Advanced Honors Seminar; Literature of London**

Credits: 3 | Grading Method: Regular, Pass-Fail, Audit

A series of seminars, often interdisciplinary and sometimes team taught. The subjects will vary from semester to semester.

Contact department for information to register for this course.

HONR348M **Advanced Honors Seminar; Stock Market**

Credits: 3 | Grading Method: Regular, Pass-Fail | General Education: DSHS, DSSP, SCIS

A series of seminars, often interdisciplinary and sometimes team taught. The subjects will vary from semester to semester.

0101	Eric Wish, David McCandlish Th 2:00pm - 5:00pm	Seats (Total: 24) ANA 0120

HONR349V **Honors Colloquium; Dubai: Global Immersion Experience**

Credits: 3 Grading Method: Regular, Pass-Fail

A series of seminars, often interdisciplinary and sometimes team taught. Subjects may vary.

Contact department for information to register for this course.

HONR358B **Honors Practicum**

(Perm req)

Credits: 3 Grading Method: Sat-Fail

For student section leaders of HONR100 or HONR200.

Contact department for information to register for this course.

HONR358C **Honors Practicum**

(Perm req)

Credits: 3 Grading Method: Sat-Fail

For student section leaders of HONR100 or HONR200.

Contact department for information to register for this course.

HONR359D **Honors Workshop; Honors Teaching Assistanship**

Credits: 3 Grading Method: Sat-Fail

Honors workshops are small seminar classes which concentrate on skill development.

Contact department for information to register for this course.

HONR359X **Honors Workshop**

Credits: 1 Grading Method: Sat-Fail

Honors workshops are small seminar classes which concentrate on skill development.

Contact department for information to register for this course.

HONR378P **Advanced Honors Seminar; Elements of Music Composition for Non-Majors II**

(Perm req)

Credits: 3 Grading Method: Regular, Pass-Fail General Education: DSSP

A series of seminars, often interdisciplinary in character and sometimes team-taught. The subjects will vary from semester to semester.

Prerequisite: HONR218M. Permission of instructor required.

0101	William Evans	Seats (Total: 18)
	Tu 5:30pm - 8:00pm	PAC 1108

HONR379 **Honors Independent Study**

(Perm req)

Credits: 3 Grading Method: Regular, Pass-Fail

Involves reading or research directed by individual faculty, especially in areas outside of the student's major. Open only to University honors students.

Available only to University honors students.

Contact department for information to register for this course.

HONR379A **Honors Independent Study**

Credits: 1-6 Grading Method: Regular, Pass-Fail

Involves reading or research directed by individual faculty, especially in areas outside of the student's major. Open only to University honors students.

Contact department for information to register for this course.

HONR379W **Honors Independent Study; Writing Internship: Maryland General Assembly Pre-Professional Writing Internship**

(Perm req)

Credits: 6 Grading Method: Regular, Pass-Fail General Education: DSSP

Involves reading or research directed by individual faculty, especially in areas outside of the student's major. Open only to University honors students.

Prerequisite: permission of department and completion of either ENGL381 or HONR368A. Cross-listed with ENGL388M. Credit granted for ENGL388M or HONR379W.

0101	Thomas Lowderbaugh	Seats (Total: 15)
	Contact instructor or department for details.	

HONR388 **Honors Thesis or Project**

(Perm req)

Credits: 3 Grading Method: Regular, Pass-Fail

Contact department for information to register for this course.

IDEA247 **Introduction to Peer Innnovation Coaching**

(Perm req)

Credits: 2

Grading Method: Regular, Pass-Fail, Audit

Restriction: Permission of Academy for Innovation and Entrepreneurship. Credit only granted for: IDEA247 or IDEA250. Formerly: IDEA250. Additional information: Participation in the course requires students to review the course website at www.ter.ps/picapp and schedule a time to meet with the instructors.

Prepares you as an Academy for Innovation and Entrepreneurship Peer Innovation Coach (PIC), where you will be coaching and guiding student teams in the classroom as they experiment with using the design thinking process. You will first have the opportunity to sharpen your own understanding of the design thinking process by applying it to a team design challenge, as well as further explore each step through readings, discussion and reflection. You will then focus on the concept of creativity and learning about the mindsets that are conducive to innovation. Towards the end of the semester, you will focus on the theories and methods related to effective coaching. Throughout the course, you will observe and practice coaching alongside AIE Facilitators as they teach design thinking modules in various courses across campus. As you get more familiar and comfortable with the design thinking curriculum, you will have the opportunity to facilitate parts of classes or activities at some of our workshops and special events, such as departmental/campus-wide design challenges.

What if you could learn how to expand your creativity, scale your impact, generate wild ideas, build quickly & cheaply, and become more innovative? In this Introduction to Peer Innovation Coaching, you will learn how to apply innovation tools and mindsets, such as design thinking and lean startup, for yourself and with others to create change in meaningful ways. Peer Innovation Coaches (PICS) come from all programs and majors on campus, and learn how to use coaching as an effective change-making tool.

0101	Mira Azarm, Christina Hnatov F 12:00pm - 1:30pm Contact instructor or department for details.	Seats (Total: 20) ESJ 2101

IDEA258A **Special Topics in Innovation; Becoming a Design Thinker: Mindsets and Tools for Innovation**

Credits: 1

Grading Method: Regular, Pass-Fail, Audit

Special topics in innovation

This introductory course allows students to try on the behaviors of a creative problem-solver, leveraging the methods and tools of design thinking, a human-centered innovation process. This is a highly experiential, often experimental course. All majors are encouraged to enroll.

0101	Mira Azarm, Christina Hnatov W 4:00pm - 5:30pm	Seats (Total: 30) ESJ 2101

IDEA258C **Special Topics in Innovation; Designing Ethical Campaigns**

Credits: 1 Grading Method: Regular, Pass-Fail, Audit

Special topics in innovation

This course will introduce students to and immerse them in the methods running an ethical campaign. Through our campus, local, state, national government, we have seen how dirty politics can get. Throughout the semester students will be able to apply their learnings to design a campaign that can make tangible differences, but stay true to their core values. We will explore the different functions and methods it takes to run an ethical campaign. Our assignments and activities will allow for students to have hands-on engagement with stakeholders at UMD to create and test their own ethical campaign.

0101	Mira Azarm	Seats (Total: 25)
	Tu 3:30pm - 5:00pm	ESJ 2101

IDEA258D **Special Topics in Innovation; Explorations in Design**

Credits: 1 Grading Method: Regular, Pass-Fail, Audit

Special topics in innovation

IDEA258D Explorations in Design gives students the opportunity to apply their unique backgrounds to the realm of design. Students will engage in hands-on learning with real world applications to incorporate design thinking into everyday life. We will explore how good and bad design plays a role in the mundane, from the way we order coffee to the logos you see to the signs that help you navigate (or get lost) on the metro.

0101	Erica Estrada-Liou	Seats (Total: 25)
	W 12:00pm - 1:15pm	ESJ 2101

IDEA369 **Peer Innovation Coaching**

(Perm req)

Credits: 2 Grading Method: Regular, Pass-Fail, Audit

Deepen your role as an Academy for Innovation and Entrepreneurship Peer Innovation Coach (PIC), where you will be coaching and guiding student teams in the classroom as they learn to use innovation methods. There is both an experiential component and a classroom component. The experiential component involves coaching and teaching innovation class sessions throughout campus, and the classroom component involves discussions, reflection assignments and scenario role-playing to help improve your coaching and teaching. While some of the content in the classroom component will be seeded by a set of course readings, much of it will also be seeded by your own experiences in the experiential component.

0101	Erica Estrada-Liou	Seats (Total: 15)
	F 2:00pm - 3:30pm	ESJ 2101
	Contact instructor or department for details.	

IDEA398 **Independent Study: Experiments in Coaching**

(Perm req)

Credits: 1

Grading Method: Regular, Pass-Fail, Audit

Special topics in coaching others

Contact department for information to register for this course.

IMMR Immigration Studies Spring 2020

IMMR399 **Internship in Immigration/Migration Studies**

(Perm req)

Credits: 1-6

Grading Method: Regular, Pass-Fail

Internship experience with an organization that works with or studies migration or immigrant populations. This experiential learning course provides training that enriches the students' academic field of study and the IMMR transcript notation. Students submit a final written report of how the experience ties into their major field of study.

Restriction: Permission of IMMR department; and junior standing or higher. The Immigration and Migration Studies Internship program. Pre-professional experience in migration studies research, analysis, and writing in a variety of work settings. Contact department for information to register at globalmigration@umd.edu.

0101	Katarina Keane	Seats (Total: 1)
	Contact instructor or department for details.	

IMMR400 **Vital Voices: Oral Histories of the Immigrant Experience**

Credits: 3

Grading Method: Regular, Pass-Fail, Audit

Recommended: HIST222; or IMMR200. Credit only granted for: HIST428N, IMMR400, THET428I, or THET498V.. Formerly: HIST428N.

An exploration of the dynamic subject of U.S. immigrant experience through the scope of individual immigrant life stories in a global context. Course will include an overview of U.S. and global immigration patterns and an introduction to the practice of oral history.

0101	Robert Chiles	Seats (Total: 20)
	TuTh 11:00am - 12:15pm	SQH 1111

INAG Institute of Applied Agriculture Spring 2020

INAG099 **Cooperative Education**

(Perm req)

Credits: 0 Grading Method: Sat-Fail

Restriction: Co-op is open to sustainable agriculture and agricultural business management students who have completed a minimum of 45 credit hours, have a minimum GPA of 2.0, and have advisor's permission. Students must pay a $250.00 lab fee. Cooperative Education, the culminating 22-week field experience in your program, is a collaborative partnership between the Institute of Applied Agriculture and the employer to provide a quality academic and practical training for students. Each student's co-op will vary according to the unique career direction the student wishes to pursue and is intended to accompany seminars and activities previously acquired in the IAA program. Upon completion of the course, students will have established contacts in the industry and substantial documentation to develop a personal portfolio.

0101	Meredith Epstein	Seats (Total: 15)
	Contact instructor or department for details.	

INAG104 **Agricultural Mathematics**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Restricted to students in the AGNR-Institute of Applied Agriculture department. Others by permission of the AGNR-Institute of Applied Agriculture department. The development of problem-solving skills often used in the everyday world of work. Problems involving soils, fertilizers, seeding rates, feed mixtures, and business finance. Development of mathematical skills in solving basic equations, the use of percent and ratios, and calculating various linear and cubic measurements.

0101	Temitope Fajingbesi	Seats (Total: 20)
	MWF 9:00am - 9:50am	JUL 1123

INAG105 **Soils and Fertilizers**

Credits: 3 Grading Method: Regular, Pass-Fail

Restriction: Must be in a major in AGNR-College of Agriculture & Natural Resources; or permission of AGNR-Institute of Applied Agriculture department.

Soils and Fertilizers is an introductory course for students entering careers related to applied agricultural production. The course is divided into three subject areas: soil properties, soil fertility, and environmental concerns of using soils for agricultural production. Emphasis is placed upon the characteristics of Maryland soils which are similar to the soils in the mid-Atlantic region. The importance of nutrient management and non-point source pollution of the Chesapeake Bay are covered in the course.

Must be a major in AGNR-College of Agriculture & Natural Resources OR permission of AGNR-institute of Applied Agriculture department.

0101	Kenneth Ingram MW 10:00am - 10:50am F 1:00pm - 2:50pm	Seats (Total: 15) JUL 1123 JUL 1111	 Lab
0102	Kenneth Ingram MW 10:00am - 10:50am F 10:00am - 11:50am	Seats (Total: 15) JUL 1123 JUL 1111	 Lab

INAG106 **Pesticide Use and Safety**

Credits: 2 Grading Method: Regular, Pass-Fail

Restriction: Must be in a major in AGNR-Institute of Applied Agriculture department; or must be in a major in AGNR-College of Agriculture & Natural Resources; or permission of AGNR-Institute of Applied Agriculture department. Additional information: Priority enrollment will be given to students in the IAA program or to students in the College of Agriculture and Natural Resources (AGNR).

An overview of pesticide use and safety. Topics include environmental protection, labeling, personal safety, first aid, formulation and chemistry, equipment, disposal, storage, record-keeping and liability. The course prepares students to take the Maryland State test for a private applicator's license.

Restricted to students in the AGNR-Institute of Applied Agriculture department. Others by permission of the AGNR-Institute of Applied Agriculture department.

0101	Ronald Myers W 3:00pm - 4:50pm	Seats (Total: 25) JUL 1123

INAG110 **Oral Communication**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit General Education: FSOC

Credit only granted for: COMM107, COMM200, INAG110, JOUR130, THET285.

A study of how perception, self-concept, and verbal and nonverbal communications affect the communication process as it emerges in the workplace. The course provides skill training in speech writing, public speaking, group communication, interpersonal communication, listening, and responding.

0101	Eric Dunning MWF 8:00am - 8:50am	Seats (Total: 19) JUL 1105

0201	Amy Fisher MWF 8:00am - 8:50am	Seats (Total: 19) PLS 1162
0301	George Kurtzweil MWF 9:00am - 9:50am	Seats (Total: 19) CHE 2116
0401	Eric Dunning MWF 9:00am - 9:50am	Seats (Total: 19) JUL 1105
0501	Amy Fisher MWF 9:00am - 9:50am	Seats (Total: 19) PLS 1162
0701	Amy Fisher MWF 10:00am - 10:50am	Seats (Total: 19) PLS 1158
0801	Chelsea Mays-Williams MWF 10:00am - 10:50am	Seats (Total: 19) CHE 2116
0901	Shala Larson MWF 11:00am - 11:50am	Seats (Total: 19) JUL 1105
1001	Chelsea Mays-Williams MWF 11:00am - 11:50am	Seats (Total: 19) CHE 2140
1101	Samuel Rubin MWF 11:00am - 11:50am	Seats (Total: 19) CCC 1111
1201	George Kurtzweil MWF 12:00pm - 12:50pm	Seats (Total: 19) JMP 2202
1301	Shala Larson MWF 12:00pm - 12:50pm	Seats (Total: 19) ATL 0201
1401	Chelsea Mays-Williams MWF 12:00pm - 12:50pm	Seats (Total: 19) CHE 2116
1501	Shala Larson MWF 1:00pm - 1:50pm	Seats (Total: 19) ATL 0201
1601	Samuel Rubin MWF 1:00pm - 1:50pm	Seats (Total: 19) CCC 1111

1701	George Kurtzweil MWF 1:00pm - 1:50pm	Seats (Total: 19) JMP 2202
1801	George Kurtzweil MWF 2:00pm - 2:50pm	Seats (Total: 19) JMP 2202
1901	Chelsea Mays-Williams MWF 2:00pm - 2:50pm	Seats (Total: 19) PLS 1115
2001	Samuel Rubin MWF 2:00pm - 2:50pm	Seats (Total: 19) CCC 1111
2101	JoEllen Barnhart MW 3:00pm - 4:15pm	Seats (Total: 19) PLS 1162
2201	JoEllen Barnhart M 6:00pm - 8:50pm	Seats (Total: 19) JMP 2202
2301	JoEllen Barnhart W 6:00pm - 8:50pm	Seats (Total: 19) PHY 4221
2401	Amy Fisher TuTh 8:00am - 9:15am	Seats (Total: 19) JMP 2202
2501	Eric Dunning TuTh 8:00am - 9:15am	Seats (Total: 19) JUL 1105
2601	Amy Fisher TuTh 9:30am - 10:45am	Seats (Total: 19) JMP 2202
2701	Eric Dunning TuTh 9:30am - 10:45am	Seats (Total: 19) JUL 1105
2801	Heather McHale TuTh 9:30am - 10:45am	Seats (Total: 19) ATL 2316
2901	Heather McHale TuTh 11:00am - 12:15pm	Seats (Total: 19) JUL 1105
3001	Chelsea Mays-Williams TuTh 11:00am - 12:15pm	Seats (Total: 19) ATL 2352

3101	Amy Fisher TuTh 11:00am - 12:15pm	Seats (Total: 19) PLS 1158
3201	Eric Dunning TuTh 12:30pm - 1:45pm	Seats (Total: 19) PLS 1168
3301	Chelsea Mays-Williams TuTh 12:30pm - 1:45pm	Seats (Total: 19) ATL 2352
3401	George Kurtzweil TuTh 12:30pm - 1:45pm	Seats (Total: 19) PLS 1158
3501	JoEllen Barnhart TuTh 2:00pm - 3:15pm	Seats (Total: 19) PLS 1162
3601	George Kurtzweil TuTh 2:00pm - 3:15pm	Seats (Total: 19) PLS 1164
3701	Samuel Rubin TuTh 2:00pm - 3:15pm	Seats (Total: 19) PLS 1172
3801	Samuel Rubin TuTh 3:30pm - 4:45pm	Seats (Total: 19) PLS 1172
3901	JoEllen Barnhart TuTh 3:30pm - 4:45pm	Seats (Total: 19) JMP 2202
4001	Samuel Rubin TuTh 5:00pm - 6:15pm	Seats (Total: 19) PLS 1172

INAG110S **Oral Communication**

Credits: 3 | Grading Method: Regular, Pass-Fail, Audit | General Education: FSOC

Credit only granted for: COMM107, COMM200, INAG110, JOUR130, THET285.

A study of how perception, self-concept, and verbal and nonverbal communications affect the communication process as it emerges in the workplace. The course provides skill training in speech writing, public speaking, group communication, interpersonal communication, listening, and responding.

0601	Eric Dunning MWF 10:00am - 10:50am	Seats (Total: 19) CCC 1115

INAG131 **Introduction to Agricultural Policy and Communication**

Credits: 3 Grading Method: Regular, Pass-Fail

Restriction: Must be a student in the Institute of Applied Agriculture; or must be in a major in AGNR-College of Agriculture & Natural Resources; or permission of AGNR-Institute of Applied Agriculture department.

Introduction to Agricultural Policy and Communication equips students with the knowledge and skills needed to engage in real-world communication around timely issues in agriculture. This course covers basics of United States government and the policymaking process, current and historical policy issues in agriculture, advocacy communication strategies and tactics, and careers in policy and advocacy. This course focuses on practical skills application, as well as exposure to government and advocacy work in action, including field trips and guest speakers. Throughout the course, students will learn and practice communication methods both individually and in team-directed agriculture-related projects.

0101	Meredith Epstein MWF 1:00pm - 1:50pm Contact instructor or department for details.	Seats (Total: 25) JUL 1123

INAG199 **Special Problems**

Credits: 1-3 Grading Method: Regular, Pass-Fail, Audit

Restricted to students in the AGNR-Institute of Applied Agriculture department. Others by permission of the AGNR-Institute of Applied Agriculture department.

0101	Geoffrey Rinehart Contact instructor or department for details.	Seats (Total: 5)
0201	Temitope Fajingbesi Contact instructor or department for details.	Seats (Total: 5)
0301	Kenneth Ingram Contact instructor or department for details.	Seats (Total: 5)
0401	Roy Walls Contact instructor or department for details.	Seats (Total: 5)
0501	Meredith Epstein Contact instructor or department for details.	Seats (Total: 5)

0601	Glori Hyman	Seats (Total: 5)
	Contact instructor or department for details.	

INAG199C **Special Problems; in AgriScience**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Restricted to students in the AGNR-Institute of Applied Agriculture department. Others by permission of the AGNR-Institute of Applied Agriculture department.

0101	Glori Hyman	Seats (Total: 5)
	Contact instructor or department for details.	

INAG204 **Agricultural Business Management**

Credits: 3 Grading Method: Regular, Pass-Fail

Recommended: INAG102. Restriction: Must be in a major in AGNR-College of Agriculture & Natural Resources; or permission of AGNR-Institute of Applied Agriculture department. Additional information: Priority in enrollment will be given to students within the Institute of Applied Agriculture. May not count toward any BMGT major or minor requirement.

This course integrates various concepts related to managing a profitable agricultural business. Topics include business management and decision making, preparing a business plan, financial analysis and budgeting, risk and investment management, and small business taxes, among others. Students will gain relevant knowledge and skills as they complete the comprehensive business plan for successfully managing an agricultural business.

0101	Temitope Fajingbesi	Seats (Total: 27)
	MWF 12:00pm - 12:50pm	JUL 1123

INAG205 **Analyzing Alternative Enterprises**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Restriction: Must be in a major in AGNR-College of Agriculture & Natural Resources; or permission of AGNR-Institute of Applied Agriculture department. Additional information: Priority in enrollment will be given to students within the Institute of Applied Agriculture.

This course identifies and analyzes alternative crops, livestock, and other agricultural business enterprises. Students assess sustainability, geographic adaptability and potential profitability of businesses through lectures, class projects, and presentations from farmers, entrepreneurs, and managers engaged in alternative enterprises. Topics may include value added approaches, organic crop production, and recreational agricultural pursuits.

0101	Meredith Epstein	Seats (Total: 20)
	TuTh 11:00am - 12:15pm	JUL 1123

INAG206 **Agricultural Business Law**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Restriction: Students at the Institute of Applied Agriculture (IAA); or students at the College of Agriculture and Natural Resources (AGNR); or permission may be granted to other students based on available space. Additional information: Course cannot be used to fulfill a requirement for a Robert H. Smith School of Business major or minor.

This course introduces various legal concepts and their relationships to agricultural business and transactions. Topics include torts, criminal law, contracts, promissory notes, property, partnerships, business entities, employment, and bankruptcy, among others. Students will gain a general understanding of the legal system that will help them manage and/or operate profitable agricultural businesses.

0101	Michael Grady, Glori Hyman	Seats (Total: 30)
	W 5:30pm - 8:30pm	JUL 1123

INAG207 **Power and Machinery**

Credits: 3 Grading Method: Regular, Pass-Fail

Prerequisite: INAG250 or PLSC204. Restriction: Must be in a major within the AGNR-Institute of Applied Agriculture department; or permission of AGNR-Institute of Applied Agriculture department. Additional information: Priority will be given to IAA students and permission will be granted to AGNR students and others on a space available basis.

The basic principles of compact equipment management, including selection, maintenance, operation, adjustment and troubleshooting of agricultural machinery and power units, will be studied. The methods of power development, measurement, and transmission, through power trains both mechanical and hydraulic, will be studied. A systematic disassembly, analysis, diagnosis and reassembly of a small engine will be completed by each student.

0101	Roy Walls	Seats (Total: 12)	
	Tu 9:00am - 10:50am	ANS 0504	
	Th 8:00am - 10:50am	ANS 0504	Lab

INAG215 **Business Management Principles for Turf Facilities**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Recommended: INAG107; or PLSC305. Restriction: Must be in a major within the AGNR-Institute of Applied Agriculture department; or must be in one of the following programs (Plant Sciences; Plant Sciences: Horticulture & Crop Production; Plant Sciences: Landscape Management; Plant Sciences: Plant Science; Plant Sciences: Turf & Golf Course Mgmt) ; or permission of AGNR-Institute of Applied Agriculture department. Additional information: Enrollment priority is given to students majoring in Turfgrass and Golf Course Management in the Institute of Applied Agriculture and Plant Science and Landscape Architecture.

An advanced course in turfgrass management with emphasis on development of maintenance operating budgets for labor, fertilization, pest control, and supplemental cultural practices for golf courses and athletic field facilities. An overview of the current trend in golf course design and construction and in athletic field construction practices will be covered. Students will be responsible for a presentation concerning some phase of turfgrass management relating to golf course or athletic field operations.

0101	Geoffrey Rinehart	Seats (Total: 20)
	MWF 11:00am - 11:50am	JUL 1123

INAG235 **Irrigation and Drainage**

(Perm req)

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Restriction: Permission of instructor. Credit only granted for: INAG235, PLSC235 or PLSC489I. Formerly: PLSC489I. Additional information: Priority enrollment will be given to IAA and PLSC majors. By permission for available seats.

An overview of U.S. and state water doctrines and plant water use rates. Irrigation systems for residential and athletic field use will be discussed covering such topics as hydraulics, sprinkler spacing, pipe selection and sizing, pumps, controllers, valves, and irrigation trouble shooting. Surface and subsurface drainage for turfgrass sites will also be covered.

0101	Geoffrey Rinehart	Seats (Total: 22)
	TuTh 12:30pm - 2:30pm	JUL 1111
	Open to AGNR and IAA students only.	

INAG244 **Herbaceous Plants**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Restriction: Must be in a major within the AGNR-Institute of Applied Agriculture department; or must be in a major in AGNR-College of Agriculture & Natural Resources; or permission of AGNR-Institute of Applied Agriculture department. Credit only granted for: INAG244 or PLSC244.

Herbaceous plants are integral components of residential and commercial landscapes. Students will become familiar with 250 annual and perennial plants. The emphasis will be on plant management requirements and seasonal variation in the landscape.

0101	Kenneth Ingram	Seats (Total: 20)
	TuTh 12:30pm - 2:30pm	JUL 1123

INAG248 **Topics in Sustainable Agriculture**

Credits: 1 Grading Method: Regular, Pass-Fail, Audit

Through readings, class discussions, and guest speakers, this one-credit seminar course exposes students to current trends, concerns and research in sustainable agriculture. It allows students to explore various interest areas and discuss a variety of topics as they relate to sustainable practices.

0101	Meredith Epstein	Seats (Total: 25)
	Tu 6:00pm - 7:50pm	JUL 1123

INAG250 **Fundamentals of Agricultural Mechanics**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Restriction: Must be in a major in AGNR-College of Agriculture & Natural Resources OR Permission of AGNR-Institute of Applied Agriculture Department. Credit only granted for: PLSC204 or INAG250. Additional information: Priority given to IAA majors and AGNR students whose major requires this course. Permission will be granted to other students on seats available basis.

A comprehensive course that teaches the fundamentals of agricultural related mechanics. Lecture and lab exercises will cover the broad range of topics associated with agricultural mechanics including electricity, plumbing, welding processes, and wood and metal working applications. Emphasis will be given to the design and installation of electrical circuits. It will also include project planning and implementation including development of safety protocols for each area of study and introduction of GPS equipment and software for survey data collection.

0101	Roy Walls	Seats (Total: 8)
	MW 2:00pm - 5:00pm	ANS 0504

INAG252 **Agricultural Public Relations**

Credits: 3 | Grading Method: Regular, Pass-Fail, Audit | General Education: DSSP

Recommended: INAG103.

Introduces the fundamental concepts and procedures of public relations in agriculture. Topics include understanding external audiences; key practices in agricultural media relations, social media, executive communication, and crisis communication; and managing the research, planning, and evaluation aspects of the public relations process. Students will gain the public relations knowledge and skills necessary for communicating effectively with an organization's external audiences.

0101	Shala Larson	Seats (Total: 20)
	TuTh 9:30am - 10:45am	JUL 1123

INAG299A **Supervised Work Experience; Internship I**

Credits: 1 | Grading Method: Sat-Fail

Restricted to students in the AGNR-Institute of Applied Agriculture department. Others by permission of the AGNR-Institute of Applied Agriculture department.

Contact department for information to register for this course.

INAG299B **Supervised Work Experience; Internship II**

Credits: 1 | Grading Method: Regular, Pass-Fail

Restricted to students in the AGNR-Institute of Applied Agriculture department. Others by permission of the AGNR-Institute of Applied Agriculture department.

Contact department for information to register for this course.

INFM Information Management Spring 2020

INFM605 **Users and Use Context**

Credits: 3 | Grading Method: Regular, Audit, Sat-Fail

Restriction: Permission of INFO-College of Information Studies.

Use of information by individuals. Nature of information. Information behavior and mental models. Characteristics of problems, task analysis, problem solving, and decision making. Methods for determining information behavior and user needs. Information access. Information technology as a tool in information use.

0101	Rachael Bradley-Montgomery Th 6:00pm - 8:45pm	Seats (Total: 40) HBK 0103

INFM612 **Management Concepts and Principles for Information Professionals**

Credits: 3 Grading Method: Regular, Audit, Sat-Fail

Restriction: Permission of INFO-College of Information Studies.

Key aspects of management - focusing on planning, organizing, leading and controlling. The evolution of management, innovative management for the changing world, management styles and leadership, managerial planning, goal setting and decision making. Ethical issues, designing adaptive organizations responding to change, global environment, diversity, and utilizing the appropriate technology to provide effective management of information programs and services.

0101	Ping Wang W 6:00pm - 8:45pm	Seats (Total: 40) HBK 0109

INFM620 **Introduction to Strategic Information Management**

Credits: 3 Grading Method: Regular, Audit, Sat-Fail

Prerequisite: INFM612; or LBSC631; or permission of instructor. Restriction: Permission of INFO-College of Information Studies.

Strategic management is the comprehensive collection of tasks, activities, and processes organizations use to coordinate and align resources and actions with its mission, vision, and strategy. Due to changes occurring in our global landscape, the integration of business and technology is compelling organizations to move beyond traditional, reactive, and silo-based data management approaches to a managed, predictive approach that treats information as a strategic asset and uses it to create business value. To meet challenges of this hyper-competitive environment, this course will provide you with an introduction to the strategic management of information assets for competitive differentiation and sustained business success.

ML01	Ping Wang Class time/details on ELMs	Seats (Total: 40) ONLINE

INFM700 **Information Architecture**

Credits: 3 Grading Method: Regular, Audit, Sat-Fail

Prerequisite: INFM603; or permission of instructor. Restriction: Permission of INFO-College of Information Studies.

Principles and techniques of information organization and architecture for the Web environment. Structured description of digital resources, including data modeling techniques, metadata schemes, and user-oriented navigation systems.

0101	Donal Heidenblad	Seats (Total: 40)
	Th 2:00pm - 4:45pm	HBK 0115

INFM719 **Independent Study**

(Perm req)

Credits: 1-3 Grading Method: Regular, Sat-Fail

Intensive individual study under faculty supervision.

Contact department for information to register for this course.

INFM737 **Information Management Capstone Experience**

Credits: 3 Grading Method: Sat-Fail

Prerequisite: INFM736; and must have earned a minimum of 27 credits in the MIM Program. Or permission of instructor. Restriction: Must be in Information Management (Master's) program; and permission of INFO-College of Information Studies.

The Information Management Capstone Experience I and II are the culminating experience of the Master of Information Management program, taken in the students final two semesters. The capstone experience provide students with the opportunity to integrate and synthesize the knowledge and skills acquired throughout their MIM course work while working in a real world Information Management project. These courses must be taken in succession.

0101	David Loshin	Seats (Total: 40)
	M 6:00pm - 8:45pm	HBK 0115

INFM799 **Master's Thesis Research**

(Perm req)

Credits: 1-6 Grading Method: Sat-Fail

Intensive individual research course under the supervision of a faculty member.

Contact department for information to register for this course.

INST Information Studies Spring 2020

INST123 **Databases for All**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit General Education: DSSP

An introduction to relational databases for students with no previous programming experience. Provides a means for students of diverse backgrounds to successfully learn how to store, retrieve, and maintain data in relational databases. Topics include a brief comparison of database systems with an emphasis on relational databases, fundamental relational database concepts, and data types. Includes technical approaches to accessing information stored in relational databases.

0101	Pamela Duffy, Vedat Diker TuTh 9:30am - 10:45am	Seats (Total: 100) SQH 1120

INST126 **Introduction to Programming for Information Science**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Prerequisite: Minimum grade of C- in MATH115; or must have math eligibility of MATH140 or higher; or permission of instructor. Restriction: Must not have completed INST326; and must be in Information Science program.

An introduction to computer programming for students with very limited or no previous programming experience. Topics include fundamental programming concepts such as variables, data types, assignments, arrays, conditionals, loops, functions, and I/O operations.

0101	Amanda Lazar TuTh 9:30am - 10:45am	Seats (Total: 50) CSI 1122
0103	Philip Piety TuTh 2:00pm - 3:15pm	Seats (Total: 50) ARC 1101
0104	Satyarth Praveen MWF 1:00pm - 1:50pm	Seats (Total: 50) KEY 0103
0105	Joel Chan MWF 11:00am - 11:50am	Seats (Total: 50) PHY 4221

INST152 **"Fake Checking": Battling Misinformation and Disinformation in the Real World**

Credits: 3 Grading Method: Regular, Pass-Fail General Education: DSSP

Examining the phenomenon of "fake news" using the principles of information literacy, students will develop their skills in locating, analyzing, and evaluating different information sources -- in the classroom, in their personal lives, and in the workplace.

0101	Ursula Gorham-Oscilowski TuTh 11:00am - 12:15pm	Seats (Total: 150) JMZ 0220

INST154 **Apollo at 50**

Credits: 3 | Grading Method: Regular, Pass-Fail, Audit | General Education: DSHS, SCIS

Examines Apollo mission, one of the greatest engineering accomplishments of all time, in which Neil Armstrong walked on the moon. Since the mission, people have asked: if we can land on the moon, why can't we eliminate poverty? Why can't we cure cancer? Why can't we prevent global warming? Asks what were the social, political, financial, scientific, engineering, operational, and human aspects of the Apollo program that came together to make the moon landings possible?

0101	Douglas Oard	Seats (Total: 78)
	TuTh 5:00pm - 6:15pm	ESJ 2212

INST155 **Social Networking**

Credits: 3 | Grading Method: Regular, Pass-Fail, Audit | General Education: DSHS, SCIS

Credit only granted for: INFM289I or INST155. Formerly: INFM289I.

Introduces methods for analyzing and understanding how people use social media - social networking websites, blogging and microblogging, and other forms of online interaction and content generation - and their societal implications. Introduces students to the science and social science of network analysis. Through real world examples, including analysis of their own social networks, students develop skills for describing and understanding the patterns and usage of services like Facebook, Twitter, YouTube, and others.

0101	Jennifer Golbeck	Seats (Total: 150)
	Class time/details on ELMs	ONLINE

INST201 **Introduction to Information Science**

Credits: 3 | Grading Method: Regular, Pass-Fail, Audit | General Education: DSHS

Credit only granted for: INST201 or INST301. Formerly: INST301.

Examining the effects of new information technologies on how we conduct business, interact with friends, and go through our daily lives. Understanding how technical and social factors have influenced the evolution of information society. Evaluating the transformative power of information in education, policy, and entertainment, and the dark side of these changes.

0101	Kelly Hoffman	Seats (Total: 100)
	Class time/details on ELMs	ONLINE

0102	M Sauter MWF 11:00am - 11:50am	Seats (Total: 100) ATL 2324
0103	Renee Hill Tu 3:30pm - 4:45pm Class time/details on ELMs	Seats (Total: 100) TYD 0117 ONLINE
0105	M Sauter Class time/details on ELMs	Seats (Total: 100) ONLINE
0106	Ryan O'Grady Class time/details on ELMs	Seats (Total: 100) ONLINE

INST208A **Special Topics in Information Studies; How NASA Sees the Earth**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Covers special topics in information studies.

0101	Sergii Skakun TuTh 12:30pm - 1:45pm	Seats (Total: 100) ESJ 1202

INST208M **Special Topics in Information Studies; Academic Peer Mentor Experience in Information Science**

Credits: 1-3 Grading Method: Regular, Pass-Fail, Audit

Covers special topics in information studies.

Prerequisite: Must have completed or be concurrently enrolled in TLTC333. Restriction: Permission of INFO-College of Information Studies required - enrollment restriction. Repeatable to 6 credits. Earn academic credit for the time spent supporting an INST course in TLTC's Academic Peer Mentoring Program (AMP). Contact iSchool undergraduate student services for information to register for this course.

0123	Pamela Duffy, Vedat Diker Contact instructor or department for details.	Seats (Total: 15)
0126	Philip Piety, Amanda Lazar, Joel Chan Contact instructor or department for details.	Seats (Total: 15)
0152	Ursula Gorham-Oscilowski Contact instructor or department for details.	Seats (Total: 15)

0201	Ryan O'Grady Contact instructor or department for details.	Seats (Total: 15)
0314	Adrianne Bradford Contact instructor or department for details.	Seats (Total: 15)
0326	Gabriel Cruz, Aric Bills, Joshua Westgard Contact instructor or department for details.	Seats (Total: 15)
0327	Vedat Diker, Pamela Duffy Contact instructor or department for details.	Seats (Total: 15)
0335	Susannah Paletz Contact instructor or department for details.	Seats (Total: 15)
0352	Laria Rogers Contact instructor or department for details.	Seats (Total: 15)
0354	Kathy Weaver Contact instructor or department for details.	Seats (Total: 15)
0362	Elizabeth Bonsignore Contact instructor or department for details.	Seats (Total: 15)
0377	Alex Leitch Contact instructor or department for details.	Seats (Total: 15)
0466	Sydney Triola Contact instructor or department for details.	Seats (Total: 15)

INST309 **Independent Study in Information Science**

(Perm req)

Credits: 1-3 Grading Method: Regular, Pass-Fail

Individual independent study of an aspect of information science, selected according to student interest and need in consultation with a member of the iSchool faculty. Repeatable to 6 credits if content differs.

Contact department for information to register for this course.

INST311 **Information Organization**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Restriction: Must be in Information Science program.

Examines the theories, concepts, and principles of information, information representation and organization, record structures, description, and classification. Topics to be covered in this course include the methods and strategies to develop systems for storage, organization, and retrieval of information in a variety of organizational and institutional settings, as well as policy, ethical, and social implications of these systems.

0101	Katy Lawley Class time/details on ELMs	Seats (Total: 102) ONLINE	
0102	Lee Lipscomb Class time/details on ELMs	Seats (Total: 102) ONLINE	
0104	Ray Barker TuTh 9:30am - 10:45am	Seats (Total: 100) CSI 1115	

INST314 **Statistics for Information Science**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Prerequisite: Minimum grade of C- in STAT100 and MATH115 (or higher). Restriction: Must be in the Information Science program. Credit only granted for: BIOM301, BMGT230, CCJS200, ECON230, ECON321, EDMS451, GEOG306, GEOL351, GVPT422, INST314, JOUR405, PSYC200 or SOCY201.

Basic concepts in statistics including measure construction, data exploration, hypothesis development, hypothesis testing, pattern identification, and statistical analysis. The course also provides an overview of commonly used data manipulation and analytic tools. Through homework assignments, projects, and in-class activities, you will practice working with these techniques and tools to create information resources that can be used in individual and organizational decision-making and problem-solving.

0201	Adrianne Bradford MW 1:00pm - 1:50pm F 1:00pm - 1:50pm	Seats (Total: 30) SYM 0200 ATL 2330	 Discussion
0202	Adrianne Bradford MW 1:00pm - 1:50pm F 2:00pm - 2:50pm	Seats (Total: 30) SYM 0200 HBK 0123	 Discussion
0203	Adrianne Bradford MW 1:00pm - 1:50pm F 3:00pm - 3:50pm	Seats (Total: 30) SYM 0200 ATL 2330	 Discussion
0301	Byeol Kim TuTh 2:00pm - 3:15pm	Seats (Total: 100) CHE 2108	

INST326 **Object-Oriented Programming for Information Science**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Prerequisite: Minimum grade of C- in INST126. Restriction: Must be in the Information Science program.

An introduction to programming, emphasizing understanding and implementation of applications using object-oriented techniques. Topics to be covered include program design and testing as well as implementation of programs.

0101	Joshua Westgard MWF 1:00pm - 1:50pm	Seats (Total: 50) HBK 0302H	
0102	Aric Bills TuTh 12:30pm - 1:45pm	Seats (Total: 50) CCC 1111	
0103	Jennifer Golbeck Class time/details on ELMs	Seats (Total: 50) ONLINE	
0104	Aric Bills TuTh 3:30pm - 4:45pm	Seats (Total: 50) SPH 1303	
0105	Gabriel Cruz MWF 10:00am - 10:50am	Seats (Total: 50) BPS 1236	

INST327 **Database Design and Modeling**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit General Education: DSSP

Prerequisite: Minimum grade of C- in INST126. Restriction: Must be in the Information Science program. Credit only granted for: INST327 or BMGT402.

Introduction to databases, the relational model, entity-relationship diagrams, user-oriented database design and normalization, and Structured Query Language (SQL). Through labs, tests, and a project, students develop both theoretical and practical knowledge of relational database systems.

0201	Pamela Duffy MW 2:00pm - 2:50pm F 10:00am - 10:50am	Seats (Total: 30) ESJ 1202 ATL 2330	Discussion

0202	Pamela Duffy MW 2:00pm - 2:50pm F 11:00am - 11:50am	Seats (Total: 30) ESJ 1202 BPS 1232	Discussion
0203	Pamela Duffy MW 2:00pm - 2:50pm F 12:00pm - 12:50pm	Seats (Total: 30) ESJ 1202 HBK 0123	Discussion
0301	Vedat Diker Tu 3:30pm - 4:45pm Th 2:00pm - 3:15pm	Seats (Total: 30) ESJ 1202 BPS 1232	Discussion
0302	Vedat Diker Tu 3:30pm - 4:45pm Th 3:30pm - 4:45pm	Seats (Total: 30) ESJ 1202 BPS 1232	Discussion
0303	Vedat Diker Tu 3:30pm - 4:45pm Th 5:00pm - 6:15pm	Seats (Total: 30) ESJ 1202 BPS 1232	Discussion
ESG1	Marcelo Ramagem F 8:00am - 10:45am *Restricted to students in the BSIS @ USG Program.*	Seats (Total: 40) BLD1 0206	

INST335 **Organizations, Management and Teamwork**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Prerequisite: 1 course with a minimum grade of C- from (INST201, INST301); and minimum grade of C- in PSYC100. Restriction: Must be in Information Science program.

Examines principles, methods and types of leadership with an emphasis on goal setting, motivation, problem solving, and conflict resolution. Examines principles of developing teams and managing team projects through planning and execution, including estimating costs, managing risks, scheduling, staff and resource allocation, communication, tracking, and control. Trains students to recognize and capitalize on opportunities to use information to increase efficiency, improve performance, and support innovation within teams and organizations. Focuses on strategic use of emerging technologies and new information resources to execute information-enabled change.

0101	Susannah Paletz MW 3:00pm - 3:50pm F 9:00am - 9:50am	Seats (Total: 30) SHM 2102 HBK 0123	Discussion

0102	Susannah Paletz MW 3:00pm - 3:50pm F 10:00am - 10:50am	Seats (Total: 30) SHM 2102 ATL 2416	Discussion
0103	Susannah Paletz MW 3:00pm - 3:50pm F 11:00am - 11:50am	Seats (Total: 30) SHM 2102 ATL 2330	Discussion
0104	Susannah Paletz MW 3:00pm - 3:50pm F 12:00pm - 12:50pm	Seats (Total: 30) SHM 2102 ATL 2330	Discussion
0201	Susannah Paletz MW 1:00pm - 1:50pm F 1:00pm - 1:50pm	Seats (Total: 30) SHM 2102 SPH 0303	Discussion
0202	Susannah Paletz MW 1:00pm - 1:50pm F 2:00pm - 2:50pm	Seats (Total: 30) SHM 2102 ATL 2330	Discussion
0203	Susannah Paletz MW 1:00pm - 1:50pm F 3:00pm - 3:50pm	Seats (Total: 30) SHM 2102 HBK 0123	Discussion
0204	Susannah Paletz MW 1:00pm - 1:50pm F 4:00pm - 4:50pm	Seats (Total: 30) SHM 2102 BPS 1232	Discussion

INST346 **Technologies, Infrastructure and Architecture**

(Perm req)

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Prerequisite: 1 course with a minimum grade of C- from (INST201, INST301); and 1 course with a minimum grade of C- from (INST326, CMSC131); and minimum grade of C- in INST327. Restriction: Must be in Information Science program; and permission of INFO-College of Information Studies. Credit only granted for: INST346 or BMGT405.

Examines the basic concepts of computer hardware, systems software, networking, client/server architectures, cloud computing, distributed systems, and high performance computing as applied to information rich domains. Technology and architectures will be discussed within the contexts of solving social issues, supportingscience, and conducting business operations. Current computing topics such as web environments, IoT, security, management, and policy will also be reviewed.

0102	Dennis Frezzo Class time/details on ELMs	Seats (Total: 50) ONLINE
0104	Donal Heidenblad MWF 1:00pm - 1:50pm	Seats (Total: 50) HBK 0115
0105	Donal Heidenblad MWF 8:00am - 8:50am	Seats (Total: 50) ATL 2428
0106	Dennis Frezzo Class time/details on ELMs	Seats (Total: 50) ONLINE

INST352 **Information User Needs and Assessment**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Prerequisite: 1 course with a minimum grade of C- from (INST201, INST301); and minimum grade of C- in INST311. Restriction: Must be in Information Science program.

Focuses on use of information by individuals, including the theories, concepts, and principles of information, information behavior and mental models. Methods for determining information behavior and user needs, including accessibility issues will be examined and strategies for using information technology to support individual users and their specific needs will be explored.

0101	Courtney Douglass TuTh 11:00am - 12:15pm	Seats (Total: 50) ARC 1103
0104	Laria Rogers TuTh 3:30pm - 4:45pm	Seats (Total: 50) PLS 1130
0105	Chad Doran Class time/details on ELMs	Seats (Total: 50) ONLINE
0108	Ursula Gorham-Oscilowski Class time/details on ELMs	Seats (Total: 50) ONLINE
ESG1	Galina Madjaroff W 9:00am - 11:45am *Restricted to students in the BSIS @ USG Program.*	Seats (Total: 40) BLG4 3321

INST354 **Decision-Making for Information Science**

Credits: 3

Grading Method: Regular, Pass-Fail, Audit

Prerequisite: 1 course with a minimum grade of C- from (INST201, INST301); and minimum grade of C- in INST126, INST314, MATH115, STAT100, and PSYC100. Restriction: Must be in Information Science program.

Examines the use of information in organizational and individual decision-making, including the roles of information professionals and information systems in informed decision-making through techniques such as data analysis and regression, optimization, sensitivity analysis, decision trees, risk analysis and business simulation models.

0101	Christopher Antoun Class time/details on ELMs	Seats (Total: 50) ONLINE
0102	Kathy Weaver TuTh 2:00pm - 3:15pm	Seats (Total: 50) CCC 1111
0103	Vikas Sahasrabudhe Class time/details on ELMs	Seats (Total: 50) ONLINE
ESG1	Lori Perine Th 8:00am - 10:45am *Restricted to students in the BSIS @ USG Program.*	Seats (Total: 40) BLD3 3220

INST362 **User-Centered Design**

Credits: 3

Grading Method: Regular, Pass-Fail, Audit

Prerequisite: 1 course with a minimum grade of C- from (INST201, INST301); and minimum grade of C- in INST326; and minimum grade of C- in PSYC100. Restriction: Must be in Information Science program.

Introduction to human-computer interaction (HCI), with a focus on how HCI connects psychology, information systems, computer science, and human factors. User-centered design and user interface implementation methods discussed include identifying user needs, understanding user behaviors, envisioning interfaces, and utilizing prototyping tools, with an emphasis on incorporating people in the design process from initial field observations to summative usability testing.

0102	Ryan O'Grady Class time/details on ELMs	Seats (Total: 50) ONLINE
0103	Elizabeth Bonsignore MWF 11:00am - 11:50am	Seats (Total: 60) HBK 0302H

0104	Ge Gao TuTh 3:30pm - 4:45pm	Seats (Total: 50) BPS 1236
0105	Kenyon Crowley TuTh 5:00pm - 6:15pm	Seats (Total: 50) BPS 1236
ESG1	Stacy Surla M 9:00am - 11:45am *Restricted to students in the BSIS @ USG Program.*	Seats (Total: 40) BLD4 3308

INST366 **Privacy, Security and Ethics for Big Data**

Credits: 3 Grading Method: Regular, Pass-Fail

Prerequisite: INST201 or INST301; or permission of instructor.

Evaluates major privacy and security questions raised by big data, Internet of things (IoT), wearables, ubiquitous sensing, social sharing platforms, and other AI-driven systems. Covers history of research ethics and considers how ethical frameworks can and should be applied to digital data.

0101	Wayne Lutters TuTh 3:30pm - 4:45pm	Seats (Total: 50) TYD 2106

INST370 **Information and Preparedness, Response and Recovery in Japan**

Credits: 3 Grading Method: Regular, Pass-Fail

Credit only granted for: INST370 or INST770.

Education abroad program in Japan. Examines how individuals and groups respond to disaster through informal and formal practices of community resilience and recovery. Focuses on Japanese uses of information for these purposes, including storytelling, game-based learning, social media, archives, and memorials. Examines Japanese principles of community and kizuna ("connectedness"). Includes 2 weeks of pre-departure online course in the US, 1 week of study and travel in Japan over spring break, and 2 weeks of post-return online coursework in the US.

Contact department for information to register for this course.

INST377 **Dynamic Web Applications**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Prerequisite: 1 course with a minimum grade of C- from (INST201, INST301); and minimum grade of C- in INST126, INST327, STAT100, MATH115, and PSYC100. Restriction: Must be in Information Science program. Credit only granted for: INST377 or BMGT406.

An exploration of the basic methods and tools for developing dynamic, database-driven websites, including acquiring, installing, and running web servers, database servers, and connectability applications.

0101	Alex Leitch TuTh 5:00pm - 6:15pm	Seats (Total: 50) HBK 0302H
0102	Alex Leitch TuTh 9:30am - 10:45am	Seats (Total: 50) HBK 0302H

INST408D **Special Topics in Information Science; Designing Patient-Centered Technologies**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Selected topics in information science.

Prerequisite: 1 course with a minimum grade of C- from (INST201 or INST301), INST126, STAT100, MATH115, and PSYC100.

0101	Eun Kyoung Choe Tu 2:00pm - 4:45pm	Seats (Total: 50) HBK 2119

INST408F **Special Topics in Information Science; Health Data Analytics**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Selected topics in information science.

Prerequisite: 1 course with a minimum grade of C- from (INST201 or INST301), INST126, STAT100, MATH115, and PSYC100.

0101	Nekabari Sigalo Tu 6:00pm - 8:45pm	Seats (Total: 50) HBK 0115

INST408J **Special Topics in Information Science; Disaster Recovery in Japan**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Selected topics in information science.

Contact department for information to register for this course.

INST408K **Special Topics in Information Science; Competitive Business Intelligence**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Selected topics in information science.

Prerequisite: 1 course with a minimum grade of C- from (INST201 or INST301), INST126, STAT100, MATH115, and PSYC100.

0101	Taverekere Srikantaiah Class time/details on ELMs	Seats (Total: 50) ONLINE
0102	Taverekere Srikantaiah Class time/details on ELMs	Seats (Total: 40) ONLINE
ESG1	Taverekere Srikantaiah Class time/details on ELMs *Restricted to students in the BSIS @ USG Program.*	Seats (Total: 15) ONLINE

INST408M **Special Topics in Information Science; Design and Implementation of Web Surveys**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Selected topics in information science.

Cross-listed with SURV699R. Credit only granted for INST408M or SURV699R. This is a hands-on course in which small groups of students will develop and deploy a web survey, collect and analyze data from actual respondents, and write a report suitable for a client. Lectures and class discussion will focus on the scientific literature in web survey methodology with a focus on practical implications.

0101	Frederick Conrad, Christopher Antoun TuTh 4:00pm - 5:15pm	Seats (Total: 30) LEF 2208

INST408N **Special Topics in Information Science; Blockchain Architecture and Applications**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Selected topics in information science.

Prerequisite: 1 course with a minimum grade of C- from (INST201 or INST301), INST126, STAT100, MATH115, and PSYC100.

ESG1	David Nguyen Sa 9:00am - 11:45am *Restricted to students in the BSIS @ USG Program.*	Seats (Total: 40) BLD3 2226

INST414 **Data Science Techniques**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Prerequisite: 1 course with a minimum grade of C- from (INST201, INST301); and minimum grade of C- in INST126, INST314, STAT100, MATH115, and PSYC100. Restriction: Must be in Information Science program.

An exploration of how to extract insights from large-scale datasets. The course will cover the complete analytical funnel from data extraction and cleaning to data analysis and insights interpretation and visualization. The data analysis component will focus on techniques in both supervised and unsupervised learning to extract information from datasets. Topics will include clustering, classification, and regression techniques. Through homework assignments, a project, exams and in-class activities, students will practice working with these techniques and tools to extract relevant information from structured and unstructured data.

0101	Aditya Ravindra Bhat TuTh 5:30pm - 6:45pm	Seats (Total: 88) LEF 2166
0102	Jennifer Proctor MWF 10:00am - 10:50am	Seats (Total: 50) MCB 1207
ESG1	Wei Ai M 9:00am - 11:45am *Restricted to students in the BSIS @ USG Program.*	Seats (Total: 40) BLG4 3321

INST441 **Information Ethics and Policy**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Prerequisite: INST341; or permission of instructor.

Explores via case studies the legal, ethical, and technological challenges in developing and implementing policies for managing digital assets and information. Emphasizes access questions pertinent to managing sensitive information and the roles and responsibilities of information professionals.

0101	Karen Boyd Class time/details on ELMs	Seats (Total: 50) ONLINE

INST443 **Tools and Methods for Digital Curation**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Prerequisite: Must have completed or be concurrently enrolled in INST341.

Introduces students to the application of digital tools and methods in a variety of organizational settings, academic disciplines, and economic sectors. Hands-on experience with digital curation tools is an integral part of the course, and will be provided in the Digital Curation Innovation Center (DCIC).

0101	Richard Marciano TuTh 11:00am - 12:15pm	Seats (Total: 50) ATL 1113

INST447 **Data Sources and Manipulation**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Prerequisite: 1 course with a minimum grade of C- from (INST201, INST301); and minimum grade of C- in INST126, INST327, STAT100, MATH115, and PSYC100; and 1 course with a minimum grade of C- from (INST326, CMSC131). Restriction: Must be in Information Science program.

Examines approaches to locating, acquiring, manipulating, and disseminating data. Imperfection, biases, and other problems in data are examined, and methods for identifying and correcting such problems are introduced. The course covers other topics such as automated collection of large data sets, and extracting, transforming, and reformatting a variety of data and file types.

0101	Yla Tausczik Class time/details on ELMs	Seats (Total: 100) ONLINE
ESG1	William Farmer F 8:00am - 10:45am *Restricted to students in the BSIS @ USG Program.*	Seats (Total: 40) BLD4 3308

INST462 **Introduction to Data Visualization**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Prerequisite: 1 course with a minimum grade of C- from (INST201, INST301); and minimum grade of C- in INST126, INST314, MATH115, PSYC100, and STAT100. Restriction: Must be in Information Science program.

Exploration of the theories, methods, and techniques of visualization of information, including the effects of human perception, the aesthetics of information design, the mechanics of visual display, and the semiotics of iconography.

0102	Eric Newburger TuTh 9:30am - 10:45am	Seats (Total: 90) CCC 1205
0103	Eric Newburger TuTh 11:00am - 12:15pm	Seats (Total: 90) BPS 1250
ESG1	Jennifer Golbeck Class time/details on ELMs *Restricted to students in the BSIS @ USG Program.*	Seats (Total: 40) ONLINE

INST464 **Decision Making for Cybersecurity**

Credits: 3 Grading Method: Regular, Pass-Fail

Prerequisite: Must have earned a minimum grade of C- in INST201, INST126, MATH115, PSYC100, and INST364. Restriction: Must be in Information Science program. Credit only granted for: INST408W or INST464. Formerly: INST408W.

Discusses human and organizational decision making from a variety of perspectives. Applies different risk assessment and decision making frameworks that are relevant to personal and organization cybersecurity, with a focus on the quantitative Factor Analysis of Information Risk (FAIR) model. Considers monetary, social and societal costs of cybersecurity decisions. Considers a range of questions relating to cybersecurity, from whether to install a game on a smartphone to how to allocate scarce information security resources in an organization.

0101	Susan Campbell TuTh 11:00am - 12:15pm	Seats (Total: 50) SQH 1117

INST466 **Technology, Culture, and Society**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit General Education: DVCC

Prerequisite: 1 course with a minimum grade of C- from (INST201, INST301). Restriction: Must be in the Information Science program.

Individual, cultural, and societal outcomes associated with development of information & communication technologies (ICTs), including pro- and anti-social factors. Unpacking how gender, race, ethnicity, sexual orientation, disabilities, and political affiliations affect consumption and production of online experiences. Unpacking how structures of dominance, power and privilege manifest at individual, institutional and cultural levels.

0101	Sydney Triola TuTh 2:00pm - 3:15pm	Seats (Total: 50) ARC 1105

INST467 **Practical Hacking for Policy Makers**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Prerequisite: Minimum grade of C- in INST126, INST201, INST364, MATH115, STAT100, and PSYC100. Restriction: Must be in Information Science program. Credit only granted for: INST408V, PLCY388C, or INST467. Formerly: INST408V.

Explores the key issues facing policy makers attempting to manage the problem of cybersecurity from its technical foundations to the domestic and international policy considerations surrounding governance, response, critical infrastructure risk management, and privacy. Designed for students with little to no background in information technology, and will provide the principles to understand the current debates shaping a rapidly evolving security landscape.

0101	Charles Harry TuTh 2:00pm - 3:15pm	Seats (Total: 50) TYD 1102

INST490 **Integrated Capstone for Information Science**

(Perm req)

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Prerequisite: 1 course with a minimum grade of C- from (INST201, INST301); and minimum grade of C- in INST126, INST311, INST314, INST326, INST327, INST335, INST346, INST352, INST362, PSYC100, STAT100, and MATH115. Restriction: Must be in Information Science program; and permission of INFO-College of Information Studies.

The capstone provides a platform for Information Science students where they can apply a subset of the concepts, methods, and tools they learn as part of the Information Science program to addressing an information problem or fulfilling an information need.

0101	Philip Piety Th 6:00pm - 8:45pm	Seats (Total: 50) ESJ 0215
0103	Pamela Duffy TuTh 3:30pm - 4:45pm	Seats (Total: 50) IRB 2107

0104	Andrew Fellows MW 4:00pm - 5:15pm	Seats (Total: 50) ESJ 2212
0105	Timothy Rainsford W 6:00pm - 8:45pm	Seats (Total: 50) IRB 1207
0106	Richard Panzer Tu 6:00pm - 8:45pm	Seats (Total: 50) ESJ 0215
ESG1	Mary Francis W 9:00am - 11:45am *Restricted to students in the BSIS @ USG Program.*	Seats (Total: 40) BLD3 2226

INST604 **Introduction to Archives and Digital Curation**

Credits: 3 Grading Method: Regular, Audit, Sat-Fail

Restriction: Permission of INFO-College of Information Studies. Credit only granted for: LBSC604 or LBSC605.

Overview of the principles, practices, and applications in the archival and digital curation fields.

ML01	Eric Hung Class time/details on ELMs	Seats (Total: 40) ONLINE

INST612 **Information Policy**

Credits: 3 Grading Method: Regular, Audit, Sat-Fail

Restriction: Permission of INFO-College of Information Studies. Credit only granted for: INST612 or LBSC625. Formerly: LBSC625.

Nature, structure, development and application of information policy. Interactions of social objectives, stakeholders, technology and other forces that shape policy decisions.

0101	Paul Jaeger Tu 2:00pm - 4:45pm	Seats (Total: 30) HBK 0123
ML01	Hannah Bergman Class time/details on ELMs	Seats (Total: 30) ONLINE

INST614 **Literacy and Inclusion**

Credits: 3 Grading Method: Regular, Audit, Sat-Fail

Restriction: Permission of INFO-College of Information Studies.

The educational and psychological dimensions of helping and supporting new users to become information literate and experienced users to remain engaged.

0101	Elizabeth De Coster	Seats (Total: 30)
	Class time/details on ELMs	ONLINE

INST616 **Open Source Intelligence**

Credits: 3 Grading Method: Regular, Audit, Sat-Fail

Restriction: Permission of INFO-College of Information Studies.

An introduction to Open Source Intelligence (OSINT) for Information Professionals. For the purposes of this course, OSINT will be defined as the use of free, publicly available online sources that can be used to gather information that may be later used to conduct analysis or reach conclusions. Students will learn basic and advanced techniques for using search engines, people directories, social media networks, location-based services, images and videos, public records, and other sources. The course will also offer students more technical aspects of open-source information, including domains, IP addresses, and the deep web. Throughout the modules, data quality and validation procedures will be key topics.

0101	Mary Francis	Seats (Total: 30)
	W 2:00pm - 4:45pm	HBK 2119

INST622 **Information and Universal Usability**

Credits: 3 Grading Method: Regular, Audit, Sat-Fail

Restriction: Permission of INFO-College of Information Studies. Credit only granted for: LBSC622 OR INST622. Formerly: LBSC622.

Information services and technologies to provide equal experiences and outcomes to all users. Laws, standards, approaches, component concepts, access needs, and technologies in relation to physical and online information environments.

CT01	Renee Hill	Seats (Total: 5)
	Class time/details on ELMs	ONLINE

ML01	Renee Hill	Seats (Total: 30)
	Class time/details on ELMs	ONLINE

INST630 **Introduction to Programming for the Information Professional**

Credits: 3 Grading Method: Regular, Audit, Sat-Fail

Restriction: Permission of INFO-College of Information Studies.

An introduction to computer programming intended for students with no previous programming experience. Topics include fundamentals of programming and current trends in user interface implementation that are relevant to information professionals.

0101	David Patrick	Seats (Total: 40)
	Th 6:00pm - 8:45pm	CHM 1224

INST639C **Practical Skills in HCI; Makerspace**

Credits: 1 Grading Method: Sat-Fail, Audit

Current industry practice in the HCI and UX field involves being familiar with many practical skills and specialized software. In this repeatable course, HCIM students will be able to acquire some of these vital practical skills in order to be better prepared for joining industry upon graduation. Furthermore, this will also be an opportunity for students to develop their portfolio for future job hunts. Offered in both Fall and Spring semesters, the intention is for these "practical skills" to be taught by professional instructors with expert knowledge. The content of the course will vary from semester to semester, but here is a sample of topics: Graphic and visual design and communication; UX design and research in games; Voice and gestures; UX mockups and wireframing tools; Practical web design and technologies; UX project management software.

Provides an introduction to constructive creative practice in HCI, including training in how to productively observe the world around you and translate it into meaningful design. Working from sketching basics through 3D modelling, students will be introduced to advanced prototyping equipment, and produce a project of their own with full support notes.

0101	Alex Leitch	Seats (Total: 10)
	Meets March 26, 2020 - April 23, 2020	
	Th 2:00pm - 4:45pm	HBK 4113

INST639E **Practical Skills in HCI; UX Analysis of Emerging Technologies and Discontinuous Innovations**

Credits: 1 Grading Method: Sat-Fail, Audit

Current industry practice in the HCI and UX field involves being familiar with many practical skills and specialized software. In this repeatable course, HCIM students will be able to acquire some of these vital practical skills in order to be better prepared for joining industry upon graduation. Furthermore, this will also be an opportunity for students to develop their portfolio for future job hunts. Offered in both Fall and Spring semesters, the intention is for these "practical skills" to be taught by professional instructors with expert knowledge. The content of the course will vary from semester to semester, but here is a sample of topics: Graphic and visual design and communication; UX design and research in games; Voice and gestures; UX mockups and wireframing tools; Practical web design and technologies; UX project management software.

Learn how to use task analysis and cognitive walkthroughs to identify existing and/or potential user experience issues and how to leverage systems thinking to deduce, propose, and judge possible solutions in the context of decentralized systems such as blockchain, peer-to-peer networks, decentralized ledger technology, cryptocurrency, and decentralized applications.

0101	Geoffrey Robertson	Seats (Total: 10)
	Meets February 10, 2020 - March 9, 2020	
	M 6:00pm - 8:45pm	HBK 4113

INST641 **Policy and Ethics in Digital Curation**

Credits: 3 Grading Method: Regular, Sat-Fail

Prerequisite: INST604; or INST640; or permission of instructor. Restriction: Permission of INFO-College of Information Studies.

Discussion of strategies to address intellectual property, privacy, security and other policy and ethics concerns raised by the curation of digital records and data.

ML01	Katie Shilton	Seats (Total: 30)
	Class time/details on ELMs	ONLINE

INST644 **Introduction to Digital Humanities**

Credits: 3 Grading Method: Regular, Sat-Fail

Restriction: Permission of INFO-College of Information Studies.

A survey of the history, methods, and principal topics of the Digital Humanities, examined from theoretical and applied perspectives.

0101	Kari Kraus	Seats (Total: 20)
	W 2:00pm - 4:45pm	PLS 1164

INST646 **Principles and Information Management**

Credits: 3

Grading Method: Regular,
Audit, Sat-Fail

Restriction: Permission of INFO-College of Information Studies. Credit only granted for: LBSC680 OR INST646. Formerly: LBSC680.

Principles and practices of managing records in the context of information management programs in government, corporate and other institutional settings. Includes access; legal requirements; digital technologies; and creation, administration, appraisal, and retention and disposition of records.

0101	Chad Doran	Seats (Total: 40)
	Class time/details on ELMs	ONLINE

INST652 **Design Thinking and Youth**

Credits: 3

Grading Method: Regular,
Audit, Sat-Fail

Restriction: Permission of INFO-College of Information Studies.

Methods of design thinking specifically within and for youth contexts, including user-centered design, understanding user needs, ideation, contextual design, participatory design, iterative prototyping, and visual design. These topics will specifically be studied in the context of designing with and for youth.

ML01	Mega Subramaniam	Seats (Total: 30)
	Class time/details on ELMs	ONLINE

INST706 **Project Management**

Credits: 3

Grading Method: Regular,
Audit, Sat-Fail

Prerequisite: INFM603 and INFM612; or (LBSC631 and LBSC671); or (LBSC635 and LBSC670); or permission of instructor. Restriction: Permission of INFO-College of Information Studies. Credit only granted for: INST706 or INFM706. Formerly: INFM706.

Comprehensive overview of project management, focusing on the needs of information resource (IR) projects. Concepts and techniques for planning and execution of projects including developing work breakdown structure, estimating costs, managing risks, scheduling, staff and resource allocation, team building, communication, monitoring, control, and other aspects of successful project completion.

ML01	Philip Piety	Seats (Total: 30)
	Class time/details on ELMs	ONLINE

INST709 **Independent Study**

(Perm req) Credits: 1-3 Grading Method: Regular, Audit, Sat-Fail

Intensive individual study, reading, or research in an area of specialized interest under faculty supervision. Registration limited to the advanced student with the approval of the advisor and of the faculty member involved.

0101	Jennifer Preece Contact instructor or department for details.	Seats (Total: 5)
0201	Keith Marzullo Contact instructor or department for details.	Seats (Total: 5)
0301	Brian Butler Contact instructor or department for details.	Seats (Total: 5)
0401	Michael Kurtz Contact instructor or department for details.	Seats (Total: 5)
0501	Amanda Lazar Contact instructor or department for details.	Seats (Total: 5)
0601	Vedat Diker Contact instructor or department for details.	Seats (Total: 5)
0701	Kenneth Heger Contact instructor or department for details.	Seats (Total: 5)
0801	Douglas Oard Contact instructor or department for details.	Seats (Total: 5)
0901	Ricardo Punzalan Contact instructor or department for details.	Seats (Total: 5)
1001	Ann Weeks Contact instructor or department for details.	Seats (Total: 5)
1101	Paul Jaeger Contact instructor or department for details.	Seats (Total: 5)
1201	Renee Hill Contact instructor or department for details.	Seats (Total: 5)
1301	Jennifer Golbeck Contact instructor or department for details.	Seats (Total: 5)

1401	Kari Kraus Contact instructor or department for details.	Seats (Total: 5)
1501	Beth St Jean Contact instructor or department for details.	Seats (Total: 5)
1601	Vanessa Frias-Martinez Contact instructor or department for details.	Seats (Total: 5)
1701	John Bertot Contact instructor or department for details.	Seats (Total: 5)
1801	Ping Wang Contact instructor or department for details.	Seats (Total: 5)
1901	Kathy Weaver Contact instructor or department for details.	Seats (Total: 5)
2001	Katy Lawley Contact instructor or department for details.	Seats (Total: 5)
2101	Katie Shilton Contact instructor or department for details.	Seats (Total: 5)
2201	Christopher Antoun Contact instructor or department for details.	Seats (Total: 5)
2301	Bill Kules Contact instructor or department for details.	Seats (Total: 5)
2401	Jessica Vitak Contact instructor or department for details.	Seats (Total: 5)
2501	Taverekere Srikantaiah Contact instructor or department for details.	Seats (Total: 5)
2601	Niklas Elmqvist Contact instructor or department for details.	Seats (Total: 5)
2701	Mega Subramaniam Contact instructor or department for details.	Seats (Total: 5)
2801	Eun Kyoung Choe Contact instructor or department for details.	Seats (Total: 5)

2901	Susan Winter Contact instructor or department for details.	Seats (Total: 5)
3001	Richard Marciano Contact instructor or department for details.	Seats (Total: 5)
3101	Yla Tausczik Contact instructor or department for details.	Seats (Total: 5)
3201	Philip Piety Contact instructor or department for details.	Seats (Total: 5)
3301	Hernisa Kacorri Contact instructor or department for details.	Seats (Total: 5)
3401	Ge Gao Contact instructor or department for details.	Seats (Total: 5)
3801	Elizabeth Bonsignore Contact instructor or department for details.	Seats (Total: 5)
4301	Ursula Gorham-Oscilowski Contact instructor or department for details.	Seats (Total: 5)
4501	Tamara Clegg Contact instructor or department for details.	Seats (Total: 5)
4901	Gregg Vanderheiden Contact instructor or department for details.	Seats (Total: 5)
5501	David Loshin Contact instructor or department for details.	Seats (Total: 5)
5530	Katrina Fenlon Contact instructor or department for details.	Seats (Total: 5)
5533	Rachel Gammons Contact instructor or department for details.	Seats (Total: 5)
5537	Katherine Izsak Contact instructor or department for details.	Seats (Total: 3)

INST711 Interaction Design Studio

Credits: 3

Grading Method: Regular, Audit, Sat-Fail

Prerequisite: Must have completed or be concurrently enrolled in INST631 and INST710.

Covers basic interaction design principles and design process from a studio-based design perspective. Focuses on how to design for interactions that will resonate with your audiences: how the features and functions of a project get translated into something people find usable, useful, and desirable. Explores the role of interaction designers. Students design and prototype interactive products, systems, and services.

0101	Alex Leitch Tu 2:00pm - 4:45pm	Seats (Total: 20) HBK 0302J
0102	Patrick Thornton Th 6:00pm - 8:45pm	Seats (Total: 20) PAC 1815

INST728E **Special Topics in Information Studies; Game Design**

Credits: 3

Grading Method: Regular, Audit, Sat-Fail

Selected topics in information studies.

0101	Niklas Elmqvist W 2:00pm - 4:45pm	Seats (Total: 40) HBK 0302H

INST728F **Special Topics in Information Studies; Games and Learning**

Credits: 3

Grading Method: Regular, Audit, Sat-Fail

Selected topics in information studies.

0101	Caro Williams-Pierce Tu 2:00pm - 4:45pm	Seats (Total: 40) HBK 0302H

INST728G **Special Topics in Information Studies; Smart Cities and Urban Data Science**

Credits: 3

Grading Method: Regular, Audit, Sat-Fail

Selected topics in information studies.

Jointly offered with URSP688Y. Credit granted for URSP688Y or INST728G.

0101	Christopher Dempwolf M 4:00pm - 6:40pm	Seats (Total: 30) ARC 1119

INST728J **Special Topics in Information Studies; Disaster Recovery in Japan**

Credits: 3 Grading Method: Regular, Audit, Sat-Fail

Selected topics in information studies.

Contact department for information to register for this course.

INST728T **Special Topics in Information Studies; Visual Design**

Credits: 3 Grading Method: Regular, Audit, Sat-Fail

Selected topics in information studies.

Restriction: Must be in the Master in Human-Computer Interation program.

0101	Justin Miller W 6:00pm - 8:45pm	Seats (Total: 30) AJC 2119

INST733 **Database Design**

Credits: 3 Grading Method: Regular, Audit, Sat-Fail

Prerequisite: LBSC690, LBSC671, or INFM603; or permission of instructor. Restriction: Permission of INFO-College of Information Studies. Credit only granted for: INST733 or LBSC793. Formerly: LBSC793.

Principles of user-oriented database design. Requirements analysis. Data modelling. Data integrity and security and multi-user databases. Implementing an information system using a database management system (DBMS).

ML01	Vedat Diker, Pamela Duffy Class time/details on ELMs	Seats (Total: 40) ONLINE

INST736 **Computational Linguistics II**

Credits: 3 Grading Method: Regular, Audit, Sat-Fail

Prerequisite: LING723, CMSC723, or INST735; or permission of instructor. Cross-listed with CMSC773, LING773. Credit only granted for: CMSC773, LING773, or INST736. Additional information: CMSC students may only receive PhD Comp. credit for CMSC723 or CMSC823, not both.

Natural language processing with a focus on corpus-based statistical techniques. Topics include: stochastic language modeling, smoothing, noisy channel models, probabilistic grammars and parsing; lexical acquisition, similarity-based methods, word sense disambiguation, statistical methods in NLP applications; system evaluation.

0101	Philip Resnik W 2:00pm - 4:30pm	Seats (Total: 30) PHY 1402

INST737 **Introduction to Data Science**

Credits: 3 Grading Method: Regular, Audit, Sat-Fail

Prerequisite: INST627; and (LBSC690, LBSC671, or INFM603). Or permission of instructor. Restriction: Permission of INFO-College of Information Studies.

An exploration of some of the best and most general approaches to get the most information out of data through clustering, classification, and regression techniques.

0101	Vanessa Frias-Martinez Tu 2:00pm - 4:45pm	Seats (Total: 40) ONLINE

INST742 **Implementing Digital Curation**

Credits: 3 Grading Method: Regular, Sat-Fail

Prerequisite: INST604; or permission of instructor. Restriction: Permission of INFO-College of Information Studies.

Management of and technology for application of digital curation principles in specific settings. Characteristics, representation, conversion, and preservation of digital objects. Application of standards for digitization, description, and preservation. Planning for sustainability, risk mitigation and disaster recovery.

A Partnership for Action Learning in Sustainability (PALS) course where students apply classroom learning to actual community needs.

0101	Katrina Fenlon Th 6:00pm - 8:45pm	Seats (Total: 30) HBK 0105

INST746 **Digitization of Legacy Holdings**

Credits: 3

Grading Method: Regular, Audit, Sat-Fail

Prerequisite: INST604. Restriction: Permission of INFO-College of Information Studies. Credit only granted for: INST728B or INST746. Formerly: INST728B.

Through hands on exercises and real-world projects, students will learn how to incorporate digitization of analog holdings into an existing archival program and how to link records of different formats and from different collections together.

0101	Kenneth Heger	Seats (Total: 15)
	W 2:00pm - 4:45pm	HBK 4110

INST754 **Data Integration and Preparation for Analytics**

Credits: 3

Grading Method: Regular, Audit, Sat-Fail

Prerequisite: INFM600, INFM603, INST630, and INST733; or permission of INFO-College of Information Studies.

Provides a comprehensive overview of the end-to-end processes for acquiring, ingesting, managing, cleansing, transforming and integrating data sources for the purposes of reporting andanalytics. Concepts include data acquisition, data streaming, data staging, standardization, data quality, concept and metadata harmonization, transformation, and data modeling. Students will learn how ingested data sets can be transformed, integrated, and prepared for analytical use.

0101	David Patrick	Seats (Total: 40)
	Class time/details on ELMs	ONLINE

INST762 **Visual Analytics**

Credits: 3

Grading Method: Regular, Audit, Sat-Fail

Prerequisite: INFM603 or INST630; or permission of instructor. Restriction: Permission of INFO-College of Information Studies. Credit only granted for: INST728Q OR INST762. Formerly: INST728Q.

Visual analytics is the use of interactive visual interfaces to facilitate analytical reasoning. In essence, visual analytics is based on the--not uncontroversial--idea that humans and computers working alone are insufficient for the data challenges of today and tomorrow, and that effective synthesis of both humans and computational algorithms are needed to create human-in-the-loop systems. Thus, visual analytics bridges human-centered disciplines such as visualization and human-computer interaction with computation-centered disciplines such as machine learning, probabilistic methods, and knowledge discovery. The course contents will include both theoretical foundations of this interdisciplinary science as well as practical applications of integrated visual analysis techniques on real-world problems.

0101	Andrea Batch Tu 2:00pm - 4:45pm	Seats (Total: 40) HBK 0103

INST765 **Programming on the Web**

Credits: 3 Grading Method: Regular, Audit, Sat-Fail

Prerequisite: INFM603, LBSC690, LBSC671, or INST733; or permission of instructor. Credit only granted for: INFM743 or INST765. Formerly: INFM743.

Non-programmers will learn basic programming and how to develop familiarity with web formatting and programming paradigms, including XML, REST, APIs, and authentication schemes. The class begins with an introduction to basic programming and students build on those skills by programming applications that use web-based data and services.

0101	Douglas Lay Class time/details on ELMs	Seats (Total: 30) ONLINE

INST767 **Big Data Infrastructure**

Credits: 3 Grading Method: Regular, Audit, Sat-Fail

Prerequisite: INST737; or permission of instructor. Restriction: Permission of INFO-College of Information Studies.

Principles and techniques of data science and business intelligence. Technologies and architectures for large-scale data warehousing and scale-out data analytics platforms. Supervised and unsupervised data mining.

0101	Naeemul Hassan W 4:00pm - 6:45pm	Seats (Total: 40) SPH 1302

INST770 **Information and Preparedness, Response and Recovery in Japan**

Credits: 3 Grading Method: Regular, Sat-Fail

Credit only granted for: INST370 or INST770.

Education abroad program in Japan. Examines how individuals and groups respond to disaster through informal and formal practices of community resilience and recovery. Focuses on Japanese uses of information for these purposes, including storytelling, game-based learning, social media, archives, and memorials. Examines Japanese principles of community and kizuna ("connectedness"). Includes 2 weeks of pre-departure online course in the US, 1 week of study and travel in Japan over spring break, and 2 weeks of post-return online coursework in the US.

Contact department for information to register for this course.

INST776 **HCIM CAPSTONE PROJECT**

Credits: 3 Grading Method: Regular, Sat-Fail

Prerequisite: INST775; or permission of instructor. Restriction: Must be taken in the semester immediately following completion of INST775 HCIM Capstone Prep; and permission of INFO-College of Information Studies.

The opportunity to apply the skills learned through coursework in a semester-long project applied to a real -world problem. Capstone projects may follow the design, prototyping and evaluation process from end-to-end or may focus on a subset of elements in that process, such as formative study and design.

0101	Bill Kules	Seats (Total: 30)
	M 1:00pm - 5:00pm	HBK 0302J
	Th 6:00pm - 8:45pm	HBK 0302J

INST785 **Documentation, Collection, and Appraisal of Records**

Credits: 3 Grading Method: Regular, Audit, Sat-Fail

Prerequisite: INST604; or permission of instructor. Restriction: Permission of INFO-College of Information Studies. Credit only granted for: LBSC785 OR INST785. Formerly: LBSC785.

Development of documentation strategies and plans; collecting policies to guide programs in acquiring records; theories and techniques for appraising records to identify those with continuing value.

0101	Eric Hung	Seats (Total: 30)
	Tu 6:00pm - 8:45pm	HBK 0105

INST799 **Master's Thesis Research**

(Perm req)

Credits: 1-6 Grading Method: Sat-Fail

Contact department for information to register for this course.

INST808 **Seminar in Research Methods and Data Analysis**

Credits: 3

Grading Method: Regular, Audit, Sat-Fail

Topics and issues in information studies research. Design and conduct of research project.

Focuses on conducting quantitative research to understand behavioral and social aspects of technology use and to inform technology design. Students will engage in a hands-on project involving qualitative quantitative data collection and analysis that culminates in a research paper about a topic of their choice.

0101	Hernisa Kacorri W 2:00pm - 4:45pm	Seats (Total: 40) ATL 1114

INST809 **Individualized Teaching Experience**

(Perm req)

Credits: 3-5

Grading Method: Regular, Audit, Sat-Fail

Introduction to the techniques and challenges associated with design, delivery, and evaluation of couses offered at the University level. The doctoral student will work one-on-one with a faculty member in the development and co-teaching of a graduate level course.

0201	Instructor: TBA Contact instructor or department for details.	Seats (Total: 5)
0301	Brian Butler Contact instructor or department for details.	Seats (Total: 3)
0401	Michael Kurtz Contact instructor or department for details.	Seats (Total: 3)
0501	Instructor: TBA Contact instructor or department for details.	Seats (Total: 5)
0601	Vedat Diker Contact instructor or department for details.	Seats (Total: 5)
0701	Kenneth Heger Contact instructor or department for details.	Seats (Total: 5)
0801	Douglas Oard Contact instructor or department for details.	Seats (Total: 5)
0901	Ricardo Punzalan Contact instructor or department for details.	Seats (Total: 3)

1101	Paul Jaeger Contact instructor or department for details.	Seats (Total: 5)
1301	Jennifer Golbeck Contact instructor or department for details.	Seats (Total: 5)
1401	Kari Kraus Contact instructor or department for details.	Seats (Total: 5)
1501	Beth St Jean Contact instructor or department for details.	Seats (Total: 5)
1601	Vanessa Frias-Martinez Contact instructor or department for details.	Seats (Total: 5)
1701	John Bertot Contact instructor or department for details.	Seats (Total: 4)
1801	Ping Wang Contact instructor or department for details.	Seats (Total: 5)
1901	Kathy Weaver Contact instructor or department for details.	Seats (Total: 5)
2001	Katy Lawley Contact instructor or department for details.	Seats (Total: 5)
2101	Katie Shilton Contact instructor or department for details.	Seats (Total: 5)
2201	Leah Findlater Contact instructor or department for details.	Seats (Total: 5)
2401	Jessica Vitak Contact instructor or department for details.	Seats (Total: 5)
2501	Taverekere Srikantaiah Contact instructor or department for details.	Seats (Total: 5)
2601	Niklas Elmqvist Contact instructor or department for details.	Seats (Total: 5)
2701	Mega Subramaniam Contact instructor or department for details.	Seats (Total: 3)

2901	Susan Winter Contact instructor or department for details.	Seats (Total: 5)
3001	Richard Marciano Contact instructor or department for details.	Seats (Total: 5)
3101	Yla Tausczik Contact instructor or department for details.	Seats (Total: 5)
4301	Ursula Gorham-Oscilowski Contact instructor or department for details.	Seats (Total: 5)
4501	Tamara Clegg Contact instructor or department for details.	Seats (Total: 5)

INST810 **Individual Research Experience**

(Perm req)

Credits: 3 Grading Method: Regular, Audit, Sat-Fail

Credit only granted for: INST810 or LBSC810. Formerly: LBSC810.

Pre-candidacy individual research experience directed by a faculty member.

0101	Jennifer Preece Contact instructor or department for details.	Seats (Total: 5)
0201	Instructor: TBA Contact instructor or department for details.	Seats (Total: 5)
0301	Brian Butler Contact instructor or department for details.	Seats (Total: 5)
0401	Michael Kurtz Contact instructor or department for details.	Seats (Total: 5)
0501	Amanda Lazar Contact instructor or department for details.	Seats (Total: 5)
0601	Vedat Diker Contact instructor or department for details.	Seats (Total: 5)
0701	Kenneth Heger Contact instructor or department for details.	Seats (Total: 5)

0801	Douglas Oard Contact instructor or department for details.	Seats (Total: 5)
0901	Ricardo Punzalan Contact instructor or department for details.	Seats (Total: 5)
1101	Paul Jaeger Contact instructor or department for details.	Seats (Total: 5)
1301	Jennifer Golbeck Contact instructor or department for details.	Seats (Total: 5)
1401	Kari Kraus Contact instructor or department for details.	Seats (Total: 5)
1501	Beth St Jean Contact instructor or department for details.	Seats (Total: 5)
1601	Vanessa Frias-Martinez Contact instructor or department for details.	Seats (Total: 5)
1701	John Bertot Contact instructor or department for details.	Seats (Total: 5)
1801	Ping Wang Contact instructor or department for details.	Seats (Total: 5)
1901	Kathy Weaver Contact instructor or department for details.	Seats (Total: 5)
2001	Katy Lawley Contact instructor or department for details.	Seats (Total: 5)
2101	Katie Shilton Contact instructor or department for details.	Seats (Total: 5)
2201	Leah Findlater Contact instructor or department for details.	Seats (Total: 5)
2401	Jessica Vitak Contact instructor or department for details.	Seats (Total: 4)
2501	Taverekere Srikantaiah Contact instructor or department for details.	Seats (Total: 5)

2601	Niklas Elmqvist Contact instructor or department for details.	Seats (Total: 5)
2701	Mega Subramaniam Contact instructor or department for details.	Seats (Total: 4)
2901	Susan Winter Contact instructor or department for details.	Seats (Total: 5)
3001	Richard Marciano Contact instructor or department for details.	Seats (Total: 5)
3101	Yla Tausczik Contact instructor or department for details.	Seats (Total: 5)
3301	Hernisa Kacorri Contact instructor or department for details.	Seats (Total: 5)
4301	Ursula Gorham-Oscilowski Contact instructor or department for details.	Seats (Total: 5)
4501	Tamara Clegg Contact instructor or department for details.	Seats (Total: 5)
5519	Caro Williams-Pierce Contact instructor or department for details.	Seats (Total: 5)

INST888 **Doctoral Seminar**

Credits: 3 Grading Method: Regular, Audit, Sat-Fail

Advanced seminar on selected topics in information studies.

0101	Joel Chan M 2:00pm - 4:45pm	Seats (Total: 40) HBK 0115

INST898 **Pre-Candidacy Research**

(Perm req)

Credits: 1-8 Grading Method: Regular, Sat-Fail

Contact department for information to register for this course.

INST899 **Doctoral Dissertation Research**

(Perm req) Credits: 1-6 Grading Method: Sat-Fail

Contact department for information to register for this course.

ISRL Israel Studies Spring 2020

ISRL249G **Introduction to Jewish Literature**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit General Education: DSHU, DVUP

Cross-listed with: JWST272, CMLT242. Credit only granted for: JWST272, CMLT242, or ISRL249G.

A survey of Jewish literature and introduction to methods of reading literature in general and Jewish literature in particular. Concern with what makes a literary corpus Jewish and other issues of canonicity. All texts in English translation.

0101	Adi Mahalel TuTh 2:00pm - 3:15pm Class time/details on ELMs	Seats (Total: 40) SQH 1103 ONLINE

ISRL329K **Jewry of Muscle: Zionism and Jewish Masculinity**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit General Education: DSHU

Cross-listed with: JWST319K. Credit only granted for: JWST319K or ISRL329K.

Cross-listed with JWST319K. Credit granted for JWST319K or ISRL329K. Part of the Zionist cultural project involved creating a new Jewish masculinity that would replace the diasporic "sissy Jew" with a strong, healthy new "Jewry of Muscle." Using literary and cinematic sources, we will analyze how these Zionist and Israeli cultural productions served to build (and sometimes undermine) this new model of Jewish masculinity.

0101	Shirelle Doughty Class time/details on ELMs	Seats (Total: 40) ONLINE
0102	Shirelle Doughty Class time/details on ELMs	Seats (Total: 30) ONLINE

ISRL329M **Mizrahi Identity in Israel**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit General Education: DSHS, DVUP

Cross-listed with: JWST319D, HIST329Z. Credit only granted for: JWST319D, HIST329Z, or ISRL329M.

Cross-listed with JWST319D and HIST329Z. Credit granted for JWST319D, ISRL329M, or HIST329Z. This course brings to light narratives of Mizrahi identity in Israel and explores the trajectory of the Mizrahi struggle for equality through its various milestones: the 1959 Wadi Salib Revolt, the Black Panthers Movement in the 1970s, the emergence of the Israeli Sephardi-Orthodox party Shas, and the new wave of Mizrahi activism in the 21st century.

0101	Shay Hazkani	Seats (Total: 20)
	TuTh 3:30pm - 4:45pm	SQH 1119

ISRL343 **Global Migration and the Israeli Case Study**

Credits: 3 | Grading Method: Regular, Pass-Fail, Audit | General Education: DSHS, DVUP

Cross-listed with: SOCY398G. Credit only granted for: ISRL349K, GVPT368G, SOCY398G, SOCY398I, or ISRL343. Formerly: ISRL349K.

Over 70% of Israel's population is made of first, second or third generation immigrants, who came from over 70 countries, making Israel an ultimate immigrant society. This course will focus on the history of Israel as a case study for the understanding of the historical phenomena of modern immigration.

Cross-listed with SOCY398G.

0101	Pnina Peri	Seats (Total: 25)
	MW 2:00pm - 3:15pm	BPS 0283

ISRL349D **Investigating Topics in Israel Studies; The Right in Israel: A Historical Examination**

Credits: 3 | Grading Method: Regular, Pass-Fail, Audit

Topics in the study of Zionism and contemporary Israel from the 1880's to the present at an intermediate level. Individual sections may address history, politics, or culture.

Cross-listed with HIST328F. Credit only granted for ISRL349D or HIST328F. Israel has clearly moved towards the political Right during the last 30 years. This course will explore the history of that movement, beginning before Israeli became a state with the Revisionist movement and its offshoots. We focus primarily on post-1967, examining the religious and non-religious movements and parties that have advocated a Greater Israel. No previous knowledge of Israeli history required. Contact instructor for more information.

0101	Paul Scham	Seats (Total: 25)
	TuTh 2:00pm - 3:15pm	SQH 1123

ISRL369C **Special Topics in Study Abroad; Israeli Society in Israeli Cinema**

Credits: 3

Grading Method: Regular, Pass-Fail, Audit

Special topics course taken as part of an approved study abroad program.

Contact department for information to register for this course.

ISRL369I **Special Topics in Study Abroad; Socio-Economic, Political, Religious, and Ethnic Conflicts in Israel, and the Search For Common Ground**

Credits: 3

Grading Method: Regular, Pass-Fail, Audit

Special topics course taken as part of an approved study abroad program.

Contact department for information to register for this course.

ISRL448B **Seminar in Israel Studies; Media, Culture, and Society in Israel**

Credits: 3

Grading Method: Regular, Pass-Fail, Audit

Intensive study of an Israel Studies topic. Expected work product is a substantial research or analysis paper or appropriate equivalent.

Cross-listed with COMM498D. Credit only granted for ISRL448B or COMM498D. This course acquaints students with the historical development of media in Israel, from its government-sponsored monopolistic structure towards its current highly competitive, fragmented system. The course will discuss issues unique to Israel's media environment, including the media's role in nation-building, collective memory, social integration, and multiculturalism, and the securitization of media in the Israeli-Arab conflict.

0101	Elie Friedman Class time/details on ELMs	Seats (Total: 35) ONLINE
0102	Elie Friedman Class time/details on ELMs	Seats (Total: 31) ONLINE

ISRL448C **Seminar in Israel Studies; Populism and Social Media: A Comparative Approach**

Credits: 3

Grading Method: Regular, Pass-Fail, Audit

Intensive study of an Israel Studies topic. Expected work product is a substantial research or analysis paper or appropriate equivalent.

Crosslisted with COMM498E. Credit granted for COMM498E or ISRL448C The new media ecosystem has had a major impact on the emergence of populist movements, and not only in advanced democracies. Populist leaders are using social media to achieve power and to manipulate public opinion once they hold it. The course will look at the world-wide phenomenon of populism and populist leaders, with an emphasis on the Israeli case of Prime Minister Netanyahu's move from Tele-populism to Digital populism.

0100	Yoram Peri	Seats (Total: 25)
	MW 3:30pm - 4:45pm	TWS 1313

ISRL448V **Seminar in Israel Studies; The New Theater of Terror: Online Terrorism**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Intensive study of an Israel Studies topic. Expected work product is a substantial research or analysis paper or appropriate equivalent.

Also offered as BSST338Y. Credit granted for BSST338Y or ISRL448V. This course examines the relationships between modern terrorists and the new media, how terrorists use the online platforms, how democracies can respond to the challenge, and what are the prices of various measures.

0101	Gabriel Weimann	Seats (Total: 25)
	Meets March 23, 2020 - May 12, 2020	
	Class time/details on ELMs	ONLINE

ITAL Italian Spring 2020

Students with no experience in the language are invited to register for ITAL103.

ITAL103 **Intensive Elementary Italian**

Credits: 4 Grading Method: Regular, Pass-Fail, Audit

Prerequisite: Must have appropriate Foreign Language Placement Test (FLPT) score. Restriction: Not open to fluent/native speakers of Italian. Credit only granted for: ITAL103 or ITAL121.

Covers speaking, reading, writing, listening, and culture of Italian-speaking world.

0201	Mirella Vaglio	Seats (Total: 20)
	TuTh 11:00am - 12:15pm	KEY 1117
	W 11:00am - 11:50am	KEY 1117

0301	Joseph Falvo	Seats (Total: 20)
	MW 2:00pm - 3:15pm	JMZ 3203
	F 2:00pm - 2:50pm	JMZ 3203

ITAL121 **Accelerated Italian I**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Prerequisite: Must have appropriate Foreign Language Placement Test (FLPT) score. Credit only granted for: ITAL103 or ITAL121.

An intensive beginning course in Italian language skills: guided practice in reading, writing, understanding and conversation, to enable the student to move more quickly to advanced courses. Restricted to students already having a good background in at least one other foreign language. When taken with ITAL122, may be used to satisfy language requirement.

Contact department for information to register for this course.

ITAL122 **Accelerated Italian II**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit CORE: HO

Prerequisite: ITAL121; or must have appropriate Foreign Language Placement Test (FLPT) score. Credit only granted for: ITAL203 or ITAL122.

Continuation of ITAL121. Completion of accelerated cycle. May be used to satisfyARHU Global Engagement requirement.

Cross-listed with ITAL122H. Credit granted for ITAL122 or ITAL122H.

Contact department for information to register for this course.

ITAL122H **Accelerated Italian II**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit CORE: HO

Prerequisite: ITAL121; or must have appropriate Foreign Language Placement Test (FLPT) score. Credit only granted for: ITAL203 or ITAL122.

Continuation of ITAL121. Completion of accelerated cycle. May be used to satisfyARHU Global Engagement requirement.

For general honors students only. Cross-listed with ITAL122. Credit granted ro ITAL122 or ITAL122H.

Contact department for information to register for this course.

ITAL169C **Special Topics in Study Abroad I; Italian Conversation**

Credits: 1-3 Grading Method: Regular, Pass-Fail, Audit

Special topics course taken as part of an approved study abroad program.

Contact department for information to register for this course.

ITAL169E **Special Topics in Study Abroad I; Elementary Italian I**

Credits: 4 Grading Method: Regular, Pass-Fail, Audit

Special topics course taken as part of an approved study abroad program.

Contact department for information to register for this course.

ITAL169F **Special Topics in Study Abroad I; The Florence Experience I: Beginning Italian I**

Credits: 1-6 Grading Method: Regular, Pass-Fail, Audit

Special topics course taken as part of an approved study abroad program.

Contact department for information to register for this course.

ITAL169R **Special Topics in Study Abroad I; Introduction to Italian Language and Culture**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Special topics course taken as part of an approved study abroad program.

Contact department for information to register for this course.

ITAL203 **Intensive Intermediate Italian**

Credits: 4 Grading Method: Regular, Pass-Fail, Audit CORE: HO

Prerequisite: ITAL103; or must have appropriate Foreign Language Placement Test (FLPT) score. Restriction: Must not have completed ITAL122; and must not be a fluent/native speaker of Italian. Credit only granted for: ITAL203 or ITAL122.

Covers speaking, reading, writing, listening, and culture of Italian-speaking world.

0101	Mirella Vaglio	Seats (Total: 25)
	TuTh 2:00pm - 3:15pm	JMZ 2122
	W 2:00pm - 2:50pm	JMZ 0122

ITAL204 **Review Grammar and Composition**

Credits: 3 | Grading Method: Regular, Pass-Fail, Audit | CORE: HO

Prerequisite: ITAL203 or ITAL122; or must have appropriate Foreign Language Placement Test (FLPT) score.

An intensive review of major aspects of contemporary grammatical usage; training in comprehension; an introduction to guided composition.

0101	Stefania Amodeo	Seats (Total: 20)
	MWF 11:00am - 11:50am	JMZ 3203

ITAL207 **Reading and Writing in Italian**

Credits: 3 | Grading Method: Regular, Pass-Fail, Audit | General Education: DSHU

Prerequisite: ITAL204; or students who have taken courses with comparable content may contact the department. Restriction: Must not be a fluent/native speaker of Italian.

Culture-based, process approach to reading and writing in Italian; selected grammatical topics.

0101	Stefania Amodeo	Seats (Total: 25)
	TuTh 12:30pm - 1:45pm	JMZ 1117

ITAL252 **Stories of Italy**

Credits: 3 | Grading Method: Regular, Pass-Fail, Audit

Prerequisite: ITAL207; or permission of ARHU-School of Languages, Literatures, and Cultures department. Restriction: Must not be a fluent/native speaker of Italian. Additional information: .

Introduction to fictions across time and space in Italy.

0101	Stefania Amodeo	Seats (Total: 20)
	MWF 1:00pm - 1:50pm	JMZ 1117

ITAL269I **Special Topics in Study Abroad II; Intensive Intermediate Italian I**

Credits: 4 | Grading Method: Regular, Pass-Fail, Audit

Special topics course taken as part of an approved study abroad program.

Contact department for information to register for this course.

ITAL269R **Special Topics in Study Abroad II; Elementary Italian I**

Credits: 4 Grading Method: Regular, Pass-Fail, Audit

Special topics course taken as part of an approved study abroad program.

Contact department for information to register for this course.

ITAL301 **Italian Composition**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Prerequisite: ITAL207; or students who have taken courses with comparable content may contact the department.

Techniques of composition; grammatical analysis; various genres; vocabulary.

Contact department for information to register for this course.

ITAL311 **Advanced Oral Expression: Current Events**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Prerequisite: ITAL211; or permission of ARHU-School of Languages, Literatures, and Cultures department.

Oral expression; development of idiomatic forms and vocabulary to level of the Italian press.

Contact department for information to register for this course.

ITAL362 **Survey of Italian Society and Culture: From the 1980s to thePresent Day**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Prerequisite: ITAL207; or permission of ARHU-School of Languages, Literatures, and Cultures department.

Development of Italian society and culture from the 1980s to the present. Literature, cinema, economy, popular culture, daily life. Taught in Italian.

0101	Stefania Amodeo	Seats (Total: 20)
	MWF 10:00am - 10:50am	JMZ 3203

ITAL369F **Special Topics in Study Abroad III; Florence: The Story of the City**

Credits: 1-6 Grading Method: Regular, Pass-Fail, Audit

Special topics course taken as part of an approved study abroad program.

Contact department for information to register for this course.

ITAL369W **Special Topics in Study Abroad III; Composition and Style**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Special topics course taken as part of an approved study abroad program.

Contact department for information to register for this course.

ITAL386 **Experiential Learning**

(Perm req)

Credits: 3-6 Grading Method: Regular, Pass-Fail

Prerequisite: Must have a Learning Proposal approved by the Office of Experiential Learning Programs, faculty sponsor, and student's internship sponsor. Restriction: Junior standing or higher.

Contact department for information to register for this course.

ITAL399 **Directed Study in Italian**

(Perm req)

Credits: 1-3 Grading Method: Regular, Pass-Fail, Audit

Intended for undergraduates who wish to work on an individual basis with a professor of their choice.

Contact department for information to register for this course.

ITAL399T **Directed Study in Italian; Italian Tutoring**

Credits: 1 Grading Method: Regular, Pass-Fail, Audit

Intended for undergraduates who wish to work on an individual basis with a professor of their choice.

2610	Stefania Amodeo Contact instructor or department for details.	Seats (Total: 1)
2690	Instructor: TBA Contact instructor or department for details.	Seats (Total: 1)

ITAL421 **The Italian Renaissance**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Credit only granted for: ITAL421 or ITAL422.

A study of major trends of thought in Renaissance literature, art, and science. Taught in English.

0101	Joseph Falvo	Seats (Total: 15)
	MW 3:30pm - 4:45pm	JMZ 3122

ITAL431 **Italian Civilization in Translation**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Credit only granted for: ITAL431 or ITAL432.

Political, social, intellectual, literary and artistic forces shaping contemporary Italy from the late Middle Ages to the present. Taught in English.

Contact department for information to register for this course.

ITAL436 **Italian Cinema I: Neorealism**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Cross-listed with FILM441. Credit only granted for: FILM441 or ITAL436.

Explores representations of Italy in cinema with special focus on identity formation and the movement of Italian neorealism and post neorealism. Taught in English.

0101	Mauro Resmini	Seats (Total: 25)
	TuTh 3:30pm - 4:45pm	ESJ B0322

ITAL475 **The Italian Opera Libretto in English**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Prerequisite: Must have completed one course in literature. Credit only granted for: ITAL475 or ITAL476.

History and analysis of Italian opera librettos from Monteverdi through Mozart to Verdi and Puccini. Taught in English.

Cross-listed with MUSC448L. Credit will be granted for ITAL475 or MUSC44 8 L.

Contact department for information to register for this course.

ITAL478R **Colloquium in Italian; Italian Renaissance**

Credits: 1 Grading Method: Regular, Pass-Fail, Audit

Colloquium section taught in Italian to accompany 400-level Italian courses taught in English. Discussion, presentations, readings.

0101	Joseph Falvo	Seats (Total: 5)
	Contact instructor or department for details.	

ITAL478Y **Colloquium in Italian; Italian Cinema I**

Credits: 1 Grading Method: Regular, Pass-Fail, Audit

Colloquium section taught in Italian to accompany 400-level Italian courses taught in English. Discussion, presentations, readings.

0101	Mauro Resmini	Seats (Total: 5)
	Th 5:00pm - 5:50pm	JMZ 2123

ITAL499 **Special Topics in Italian Studies**

(Perm req)

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Contact department for information to register for this course.

ITAL499V **Special Topics in Italian Studies**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Contact department for information to register for this course.

JAPN Japanese Spring 2020

JAPN102 **Elementary Japanese II**

Credits: 6 Grading Method: Regular, Pass-Fail

Prerequisite: Minimum grade of C- in JAPN101; or appropriate Foreign Language Placement Test (FLPT) score.

Continued introduction to the basic spoken patterns of contemporary Japanese.

0101	Makiko Inoue, Takehiro Iizuka	Seats (Total: 15)
	MWF 10:00am - 10:50am	JMZ 1224
	TuTh 9:30am - 10:45am	JMZ 1224

0201	Makiko Inoue, Takehiro Iizuka MWF 11:00am - 11:50am TuTh 11:00am - 12:15pm	Seats (Total: 15) JMZ 1124 JMZ 2125
0301	Makiko Inoue, Takehiro Iizuka MWF 2:00pm - 2:50pm TuTh 2:00pm - 3:15pm	Seats (Total: 15) JMZ 1224 JMZ 1224

JAPN202 **Intermediate Japanese II**

Credits: 6 Grading Method: Regular, Pass-Fail CORE: HO

Prerequisite: Minimum grade of C- in JAPN201; or appropriate Foreign Language Placement Test (FLPT) score.

Contemporary spoken and written Japanese.

0101	Etsuko Yamakita MWF 11:00am - 12:50pm	Seats (Total: 15) JMZ 2125
0201	Etsuko Yamakita MWF 1:00pm - 2:50pm	Seats (Total: 15) JMZ 2125

JAPN302 **Advanced Japanese II**

Credits: 6 Grading Method: Regular, Pass-Fail

Prerequisite: Minimum grade of C- in JAPN301; or permission of instructor.

Continued readings in varied modern texts and advanced conversation and oral comprehension.

0101	Kumiko Akikawa MWF 11:00am - 12:50pm	Seats (Total: 15) JMZ 1103
0201	Kumiko Akikawa MWF 1:00pm - 2:50pm	Seats (Total: 15) JMZ 1103

JAPN306 **Introduction to Business Japanese**

Credits: 3 Grading Method: Regular, Pass-Fail

Prerequisite: Must have earned a minimum grade of C- in JAPN301. Additional information: Priority in enrollment will be given to students in the Smith School of Business and the Japanese program.

Introduction to business Japanese including e-mail correspondence, telephone discourse, and business terminology. Emphasis on cross-cultural concepts and practices needed for successful interaction within business settings. Taught in Japanese and English.

0101	Lindsay Yotsukura	Seats (Total: 15)
	MW 2:00pm - 3:15pm	Location: TBA

JAPN386 **Experiential Learning**

(Perm req)

Credits: 3-6 Grading Method: Regular, Pass-Fail

Prerequisite: Must have a Learning Proposal approved by the Office of Experiential Learning Programs, faculty sponsor, and student's internship sponsor. Restriction: Junior standing or higher.

Contact department for information to register for this course.

JAPN401 **Readings in Modern Japanese Literature**

Credits: 3 Grading Method: Regular, Pass-Fail

Prerequisite: Minimum grade of C- in JAPN302; or permission of instructor.

Development of advanced reading, vocabulary, grammar, and translation skills through selected readings in Japanese drawn primarily from modern literature.

Prerequisite: Minimum grade of C- in JAPN302; or equivalent FLPA

0101	Jyana Browne	Seats (Total: 15)
	TuTh 2:00pm - 3:15pm	JMZ 3203

JAPN407 **The Art of Translation**

Credits: 3 Grading Method: Regular, Pass-Fail

Prerequisite: 1 course with a minimum grade of C- from (JAPN401, JAPN402); or students who have taken courses with comparable content may contact the department.

Theory and practice of translation. Variety of genres. Japanese to English.

Contact department for information to register for this course.

JAPN425 **The Atomic Bomb in Literature and Memory**

Credits: 3 | Grading Method: Regular, Pass-Fail | General Education: DSHU

Credit only granted for: JAPN498A or JAPN425. Formerly: JAPN498A.

Study of declassified documents and commentary on the United States decision to use the bomb in 1945, the many ways Japanese writers have attempted to express their indescribable experiences in Hiroshima and Nagasaki, and the shaping of historical narratives and national identities in post-war Japan and the U.S. Taught in English.

0101	Michele Mason	Seats (Total: 30)
	MW 2:00pm - 3:15pm	JMZ 2206

JAPN498P **Special Topics in Japanese Studies; Technologies of Japanese Performance**

Credits: 3 | Grading Method: Regular, Pass-Fail

Special topics in Japanese studies. Taught in English.

Crosslisted with THET428Q. Credit only granted for JAPN498P or THET428Q. This course explores technologies of performance in Japan across the centuries. We will focus on concepts of likeness and liveness as they manifest in mythical origins of performance, the traditions of noh drama, the popular, commercial theatres of kabuki and bunraku, and contemporary experiments with robotics, Vocaloids, and other new technology. Taught in English.

0101	Jyana Browne	Seats (Total: 30)
	TuTh 11:00am - 12:15pm	JMZ 0125

JAPN499 **Directed Study in Japanese**

(Perm req)

Credits: 1-3 | Grading Method: Regular, Pass-Fail

Contact department for information to register for this course.

JOUR Journalism Spring 2020

JOUR130 **Self-Presentation in the Age of YouTube**

Credits: 3 | Grading Method: Regular, Pass-Fail, Audit | General Education: FSOC

Credit only granted for: COMM107, COMM200, ENES143, INAG110, JOUR130 or THET285. Additional information: May not count toward the Journalism major.

Students, as they make use of evolving technologies, need to be able to present themselves effectively in front of any number of different audiences through any number of different outlets. Whether in an interview on radio, a guest presentation at a conference, in comments on a video blog, in commentary on TV, in the lead on a self-produced YouTube video, or as spokesperson in front of investors or management, professionals need strong oral communication skills. This class focuses on strengthening those skills through active individual and group presentations, as well as, through discussion of key techniques and group critique of presentation publicly available in the social media space on sites such as YouTube.

0101	Mark Gray, Renee Poussaint TuTh 5:00pm - 6:15pm	Seats (Total: 22) KNI 1103
0201	George Lanum TuTh 12:30pm - 1:45pm	Seats (Total: 22) KNI 1206

JOUR150 **Introduction to Mass Communication**

Credits: 3 | Grading Method: Regular, Pass-Fail, Audit | CORE: SB | General Education: DSHS, DSSP

Additional information: Not applicable toward journalism major.

Survey of the functions and effects of the mass media in the United States. A consumer's introduction to newspapers, television, radio, film, sound recording, books, magazines, and new media technology.

0101	Edward Alwood TuTh 11:00am - 12:15pm	Seats (Total: 35) KNI 1208
0201	Edward Alwood TuTh 12:30pm - 1:45pm	Seats (Total: 30) KNI 1105
0301	Denitsa Yotova Class time/details on ELMs	Seats (Total: 35) ONLINE
0401	Bobbie Foster Class time/details on ELMs	Seats (Total: 35) ONLINE
0501	Nandikoor Bhat Class time/details on ELMs	Seats (Total: 35) ONLINE

JOUR152 **Introduction to Storytelling with Code**

(Perm req)

Credits: 1 | Grading Method: Regular, Pass-Fail, Audit

Prerequisite: Must have completed or be concurrently enrolled in JOUR200.

An introduction to the ways markup and programming languages and computational thinking are transforming news reporting and storytelling.

Attendance is required on the first day of class and last day of class.

0201	Adam Marton	Seats (Total: 70)
	Meets March 23, 2020 - May 12, 2020	
	Tu 2:00pm - 2:50pm	KNI 1208
	Class time/details on ELMs	ONLINE

JOUR175 **Media Literacy**

Credits: 3	Grading Method: Regular, Pass-Fail, Audit	CORE: IE, D	General Education: DSSP, DVUP

Additional information: Not applicable toward journalism major.

An analysis of the information, values and underlying messages conveyed via television, newspapers, the internet, magazines, radio and film. Examines the accuracy of those messages and explores how media shape views of politics, culture and society.

0101	Susan Moeller	Seats (Total: 60)
	Class time/details on ELMs	ONLINE
0201	Wei-Ping Li	Seats (Total: 35)
	TuTh 2:00pm - 3:15pm	KNI 3202
0301	Sholpan Kozhamkulova	Seats (Total: 35)
	Class time/details on ELMs	ONLINE
0401	Hazel Feigenblatt	Seats (Total: 35)
	Class time/details on ELMs	ONLINE
0501	Sohana Nasrin	Seats (Total: 35)
	Class time/details on ELMs	ONLINE

JOUR181 **Grammar for Journalists**

Credits: 1	Grading Method: Regular, Pass-Fail, Audit

Credit only granted for: ENGL181, ENGL281, or JOUR181.

The basic grammatical structures of standard American written English and its conventions of punctuation, diction and usage in journalistic writing.

0101	Linda Coleman W 2:00pm - 2:50pm	Seats (Total: 144) MMH 1400
0201	Linda Coleman W 12:30pm - 1:20pm	Seats (Total: 70) KNI 1208

JOUR199 **Survey Apprenticeship**

(Perm req)

Credits: 1 Grading Method: Sat-Fail

College-monitored experience in approved mass-communications organizations and industries.

Prerequisite: permission of department. Repeatable to 6 credits if content differs. Students must meet with the Internship Director in KNI 1100 to receive permission to register. No requests to register after the Schedule Adjustment Period will be honored.

0101	Adrianne Flynn Contact instructor or department for details.	Seats (Total: 35)

JOUR200 **Journalism History, Roles and Structures**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Introduction to the study of journalism from the standpoint of media history and sociology.

0101	Carole Lee MW 9:30am - 10:45am	Seats (Total: 30) KNI 3202
0201	Merrilee Cox TuTh 9:30am - 10:45am	Seats (Total: 31) KNI 1208

JOUR201 **News Writing and Reporting I**

(Perm req)

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Prerequisite: Minimum grade of C- in ENGL101, JOUR181, and JOUR200; and permission of JOUR-Philip Merrill College of Journalism. Restriction: For students intending to be journalism majors; and permission of JOUR-Philip Merrill College of Journalism.

Introduction to news for the print and electronic media, development of new concepts: laboratory in news-gathering tools and writing skills. Students who earned 80% or higher on the JOUR181 diagnostic are exempt from the JOUR181 prerequisite.

For students intending to be journalism majors.

0201	Rafael Lorente, Judith Havemann, Christine Harvey TuTh 12:00pm - 1:50pm	Seats (Total: 18) KNI 1101
0301	Abbie Bennett MW 7:00pm - 8:50pm	Seats (Total: 18) KNI 1101
0401	Merrilee Cox MW 12:00pm - 1:50pm	Seats (Total: 18) KNI 2103
0501	Joseph Weber MW 7:00pm - 8:50pm	Seats (Total: 18) KNI 2107
0601	Kathleen Manzo MW 10:00am - 11:50am	Seats (Total: 18) KNI 2103
0701	Rona Kobell MW 5:00pm - 6:50pm	Seats (Total: 18) KNI 2107
0801	Lisa Lednicer TuTh 2:00pm - 3:50pm	Seats (Total: 18) KNI 1101

JOUR202 **News Editing**

(Perm req)

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Prerequisite: JOUR201. Restriction: Must be in a major in JOUR-Philip Merrill College of Journalism.

Copy editing, fact checking, verification and research across media platforms, including social, with consideration of story play and placement, graphic principles, headlines and SEO.

0201	Brian Cleveland TuTh 5:00pm - 6:50pm	Seats (Total: 18) Location: TBA
0301	Barbara Barrett MW 8:00am - 9:50am	Seats (Total: 18) KNI 2103

JOUR262 **News Videography**

(Perm req)

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Prerequisite: Must have completed or be concurrently enrolled in JOUR201. Jointly offered with: JOUR603. Credit only granted for: JOUR262 or JOUR603.

Introduction to shooting, editing and production of video stories for broadcast and the Web; includes newsgathering in the field.

0101	Benjamin Worsley TuTh 7:00pm - 8:50pm	Seats (Total: 12) TWS 0222A
0201	Alanna Delfino MW 7:00pm - 8:50pm	Seats (Total: 12) TWS 0222B
0301	Bethany Swain MW 10:00am - 11:50am	Seats (Total: 11) TWS 0222B
0401	Luke Rollins TuTh 7:00pm - 8:50pm	Seats (Total: 12) TWS 0222B
0801	Bethany Swain MW 12:00pm - 1:50pm	Seats (Total: 12) TWS 0222B
1001	Robin Sundaramoorthy TuTh 11:00am - 12:50pm	Seats (Total: 12) TWS 0222A

JOUR289E **Media Law and Ethics in the Digital Age**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit General Education: DSHS, SCIS

Credit only granted for: JOUR289E or JOUR281. Formerly: JOUR289E. Additional information: This course is intended for non-journalism majors.

Explores the First Amendment, libel, privacy, FOIA and copyright as they have evolved in the digital news age of bloggers, tweeters and citizen journalists. The course will cover fundamental legal and ethical concepts as well as practical application.

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0101	Sandra Banisky	Seats (Total: 70)
	TuTh 12:30pm - 1:45pm	KNI 1208

JOUR289F **Beyond Facebook: How Social Media are Transforming Society, Culture, Business and Politics**

Credits: 3 | Grading Method: Regular, Pass-Fail, Audit | CORE: IE | General Education: DSHU, SCIS

Credit only granted for: JOUR289F or JOUR282. Formerly: JOUR289F.

Examining the rise of social media and their impact on culture, business, government, politics, journalism and society, this course provides students with a broad contextual understanding of the multidisciplinary impacts of social media such as Twitter, Facebook and similar Internet-based services.

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0201	Sarah Oates	Seats (Total: 70)
	Class time/details on ELMs	ONLINE

JOUR289P **Scandal: Exposing Corruption, Justice, and Vice in America**

Credits: 3 | Grading Method: Regular, Pass-Fail, Audit | General Education: DSHS, SCIS

Credit only granted for: JOUR289P, JOUR284 or HONR239J. Formerly: JOUR289P, HONR239J.

Students will examine the nature and meaning of scandals in society: how they are uncovered and constructed; why some forms of wrongdoing are considered scandalous but not others; how this definition has changed over time; and how scandals resonate in ways that reflect societal norms.

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0101	Mark Feldstein	Seats (Total: 60)
	M 2:00pm - 4:45pm	KNI 1208

JOUR320 **News Writing and Reporting II: Multiplatform**

(Perm req)

Credits: 3 | Grading Method: Regular, Pass-Fail, Audit

Prerequisite: Must have completed or be concurrently enrolled in JOUR152; and minimum grade of C- in JOUR201; and must have completed or be concurrently enrolled in JOUR262 or JOUR370. Restriction: Must be in a major in JOUR-Philip Merrill College of Journalism.

Principles and practices of news reporting; covering news beats and other news sources, including researching news stories for accuracy, comprehensiveness and interpretation. Due to rigorous publication requirement, plan your schedule accordingly.

0101	Ed Waldman MW 7:00pm - 8:50pm	Seats (Total: 18) KNI 2105
0201	David Lightman TuTh 8:00am - 9:50am	Seats (Total: 18) KNI 2105
0301	Jerry Zremski TuTh 6:00pm - 7:50pm	Seats (Total: 18) KNI 2107
0401	Clarence Williams TuTh 11:30am - 1:20pm	Seats (Total: 18) KNI 2107

JOUR325 **Capital News Service Bureau**

(Perm req)

Credits: 9 Grading Method: Regular, Pass-Fail, Audit General Education: DSSP

Prerequisite: JOUR320; and permission of JOUR-Philip Merrill College of Journalism.

Advanced journalism training. Students report as part of college's Capital News Service program.

Washington, DC students should enroll in section 0101. Annapolis students should enroll in section 0201. College Park students should enroll in section 0301.

0101	James Carroll Contact instructor or department for details.	Seats (Total: 10)
0201	Karen Denny Contact instructor or department for details.	Seats (Total: 10)
0301	Adam Marton Contact instructor or department for details.	Seats (Total: 10)

JOUR327 **Urban Affairs Reporting**

(Perm req)

Credits: 3 Grading Method: Regular, Pass-Fail, Audit General Education: DSSP

Prerequisite: JOUR320; and permission of instructor. Jointly offered with JOUR627. Credit only granted for: JOUR327 or JOUR627.

Students are immersed in coverage of issues affecting cities, working on a semester-long multi-platform reporting project based in Baltimore.

0101	Sandra Banisky M 1:45pm - 4:30pm	Seats (Total: 4) Location: TBA

JOUR328F **Special Topics in News Writing and Reporting; National Security Reporting**

(Perm req)

Credits: 3

Grading Method: Regular, Pass-Fail, Audit

Advanced training and practice in writing and reporting news.

Prerequisite: JOUR320. Students will conduct in-depth, investigative reporting on a national security-related issue that will teach them to deepen their source-cultivation and rapport-building and their understanding of national security issues. As part of the course, they will also look at how Washington works and the importance of public affairs reporting in the democratic policy making process.

0101	Dana Priest M 9:45am - 12:30pm	Seats (Total: 8) KNI 3200

JOUR328M **Special Topics in News Writing and Reporting; Magazine Journalism**

(Perm req)

Credits: 3

Grading Method: Regular, Pass-Fail, Audit

Advanced training and practice in writing and reporting news.

Prerequisite: JOUR320. Students will be introduced to the magazine publishing industry, which grew over the last decade despite the economic downturn and now faces new challenges from emerging digital platforms and changing consumer habits.

0101	Sarah Schaffer Tu 5:00pm - 7:45pm	Seats (Total: 16) KNI 2103

JOUR328P **Special Topics in News Writing and Reporting; Applied Entrepreneurial Journalism**

(Perm req)

Credits: 3

Grading Method: Regular, Pass-Fail, Audit

Advanced training and practice in writing and reporting news.

Prerequisite: JOUR320. Students will learn how to ideate and execute ambitious media projects in small groups from start to finish. We'll cover product and design thinking frameworks, project management techniques and business fundamentals to understand how to successfully launch a project as a working journalist.

0101	Elite Truong M 6:00pm - 8:45pm	Seats (Total: 7) KNI 3200

JOUR328R **Special Topics in News Writing and Reporting; Business and Economic Reporting**

(Perm req)

Credits: 3 Grading Method: Regular, Pass-Fail

Advanced training and practice in writing and reporting news.

Prerequisite: JOUR320. Students will explore why economic and business themes are among the top stories generating reader interest. Topics vary each semester but can focus on the economic impact of immigration, employment, income inequality, wage stagnation, trade wars and affordable housing. Students will learn to identify newsworthy stories and interpret and integrate numbers and financial data into stories in a compelling way.

0101	Constance Ford W 10:00am - 12:45pm	Seats (Total: 9) KNI 2107

JOUR352 **Interactive Design and Development**

(Perm req)

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Prerequisite: JOUR152; and JOUR201; and must have completed or be concurrently enrolled in JOUR262 or JOUR370. Or permission of JOUR-Philip Merrill College of Journalism. Restriction: Must be in a major in JOUR-Philip Merrill College of Journalism. Jointly offered with JOUR652. Credit only granted for: JOUR352 or JOUR652.

Conceptualize, wireframe, design and build responsive Web pages using HTML, style sheets and other coding tools; work with open source interactive tools, JavaScript libraries, multimedia and text to create charts, timelines, maps and other forms of nonfiction storytelling.

0101	Adam Marton W 1:00pm - 3:45pm	Seats (Total: 18) KNI 2107
0201	Gagan Nirula Th 7:00pm - 9:45pm	Seats (Total: 18) KNI 1101

0401	Brittany Mayes W 9:00am - 11:45am	Seats (Total: 18) KNI 2105
0501	Kalani Gordon Th 6:30pm - 9:15pm	Seats (Total: 15) KNI 2105

JOUR353 **News Bureau: Multimedia Reporting**

(Perm req)

Credits: 6 Grading Method: Regular, Pass-Fail, Audit General Education: DSSP

Prerequisite: JOUR352; and permission of JOUR-Philip Merrill College of Journalism; and (JOUR320 or JOUR360).

Advanced reporting and writing in an online environment focusing on multimedia, non-traditional storytelling and investigative reporting.

Contact instructor to obtain permission.

0201	Karen Denny Contact instructor or department for details. *This section is for Annapolis students.*	Seats (Total: 8)
0301	James Carroll Contact instructor or department for details. *This section is for Washington DC students.*	Seats (Total: 9)
0401	Deborah Nelson Contact instructor or department for details. *This section is for Investigative Reporting students.*	Seats (Total: 8)
0501	Thomas Bettag Contact instructor or department for details. *This section is for Field Producing students. Students will explore TV coverage of the campaign and the presidency as well as long-form reporting.*	Seats (Total: 8)
0601	Alexander Pyles Contact instructor or department for details. *This section is for Audience Engagement students.*	Seats (Total: 8)

JOUR355 **News Bureau: Multimedia Editing and Production**

(Perm req)

Credits: 6 Grading Method: Regular, Pass-Fail, Audit General Education: DSSP

Prerequisite: JOUR320 or JOUR360; and JOUR352; and permission of JOUR-Philip Merrill College of Journalism.

Advanced online journalism training. Students work as multimedia and social media editors and producers, building interactive content and special reports.

0101	Adam Marton Contact instructor or department for details.	Seats (Total: 8)
0201	Alexander Pyles Contact instructor or department for details.	Seats (Total: 10)

JOUR357 **Capital News Service Broadcast Immersion**

(Perm req)

Credits: 6 Grading Method: Regular, Pass-Fail, Audit

Prerequisite: JOUR361; and permission of JOUR-Philip Merrill College of Journalism.

Advanced broadcast journalism training. Students report as part of the College's Capital News Service program.

0101	Mel Coffee Contact instructor or department for details.	Seats (Total: 6)

JOUR360 **News Writing and Reporting II: Broadcast**

(Perm req)

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Prerequisite: Minimum grade of C- in JOUR201. Restriction: Must be in a major in JOUR-Philip Merrill College of Journalism.

Writing and reporting for broadcast media: production of news stories.

0101	Elizabeth Feldman MW 12:00pm - 1:15pm	Seats (Total: 18) KNI 2105
0301	Janet Terry TuTh 2:00pm - 3:15pm	Seats (Total: 18) KNI 2107

JOUR361 **Television Reporting and Production**

(Perm req)

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Prerequisite: JOUR262 and JOUR360.

Writing and editing for the broadcast media. Interpretive and documentary news stories.

Students will spend several hours per week on field assignments, in addition to scheduled class sessions.

0201	Joseph Bohannon TuTh 10:00am - 11:50am	Seats (Total: 12) TWS 0222B	
0301	Brandon Benavides MW 11:00am - 12:50pm	Seats (Total: 12) TWS 0222A	
0401	Joshua Davidsburg TuTh 12:00pm - 1:50pm *This section will focus on documentary filmmaking. It will not cover traditional TV reporting and does not count as a prerequisite for the CNS broadcast bureau.*	Seats (Total: 12) TWS 0222B	

JOUR362 **Broadcast News Producing**

(Perm req)

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Prerequisite: JOUR262 and JOUR360; and must have completed or be concurrently enrolled in JOUR361.

Producing TV news.

0101	Cindy Wright Tu 7:15pm - 9:15pm Tu 2:00pm - 7:00pm	Seats (Total: 2) TWS 0117 TWS 0117	 Lab
0102	Cindy Wright Tu 7:15pm - 9:15pm W 2:00pm - 7:00pm	Seats (Total: 2) TWS 0117 TWS 0117	 Lab
0103	Cindy Wright Tu 7:15pm - 9:15pm Th 2:00pm - 7:00pm	Seats (Total: 2) TWS 0117 TWS 0117	 Lab

JOUR364 **Radio Broadcasting**

(Perm req)

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Prerequisite: JOUR 334. Jointly offered with: JOUR664.

Students will receive professional skills training in the reporting, writing, editing, voicing and production of radio news. Students will be required to do extensive field reporting, along with writing and mixing radio pieces. They will also participate in other aspects of radio news production, including editing, directing, live interviewing and hosting. By the end of the semester, students will have created all the elements of a complete radio broadcast. The class will also delve into the history and evolution of radio news and its future in podcasting and other forms.

0101	Robert Little W 5:30pm - 8:15pm	Seats (Total: 9) KNI 3210

JOUR367 **Broadcast News Bureau**

(Perm req)

Credits: 9 | Grading Method: Regular, Pass-Fail, Audit | General Education: DSSP

Prerequisite: JOUR361; and permission of JOUR-Philip Merrill College of Journalism.

Advanced broadcast journalism training. Students report as part of the college's Capital News Service program.

0101	Mel Coffee Contact instructor or department for details.	Seats (Total: 10)

JOUR368D **Topics in Broadcast and Electronic Media; Social Media Content Creation, Audience Engagement and Analytics**

(Perm req)

Credits: 3 | Grading Method: Regular, Pass-Fail, Audit

Advanced research, analysis and/or practice of selected topics in broadcast journalism.

Prerequisite: JOUR320/JOUR360. This class will provide students with an overview of social media best practices for journalists, and will work to develop their skills in the following areas: social content creation, audience engagement, sourcing and verification and analytics. By the end of this course, students will have the practical skills needed to manage a social media account for themselves (as student or professional journalists) or contribute to the management of a news organization's social media presence.

0101	Alexander Pyles W 2:00pm - 3:15pm Class time/details on ELMs	Seats (Total: 18) KNI 2103 ONLINE

JOUR368I **Topics in Broadcast and Electronic Media; Designing Stories with Motion Graphics**

(Perm req)

Credits: 3

Grading Method: Regular, Pass-Fail, Audit

Advanced research, analysis and/or practice of selected topics in broadcast journalism.

Prerequisite: JOUR203 or JOUR262 or JOUR370. In this course, students will learn how to create motion graphics that turn data and facts into visually compelling animated stories. Students will learn theories and practices of animation, design and visual journalism. After completing this course, students will have a solid grasp of the following software applications: Adobe After Effects, Adobe Illustrator and Processing.

0101	Krishnan Vasudevan MW 12:30pm - 1:45pm	Seats (Total: 14) KNI 1101

JOUR368K **Topics in Broadcast and Electronic Media; Video Innovation**

(Perm req)

Credits: 3

Grading Method: Regular, Pass-Fail

Advanced research, analysis and/or practice of selected topics in broadcast journalism.

Prerequisite: JOUR361 and permission of the instructor (jdavidsb@umd.edu). Students will explore the intersection between social media, video and a live broadcast by creating new and innovative ways to "broadcast" news to an audience. The class will encourage an entrepreneurial spirit and give students the opportunity to produce a show from scratch, with content aired on UMTV and online. In addition to creating television, students will support the broadcast arm of Capital News Service by managing volunteers, filling in on the studio staff and producing special projects and graphics when necessary.

0101	Joshua Davidsburg Tu 4:00pm - 6:45pm	Seats (Total: 8) TWS 0222B

JOUR368L **Topics in Broadcast and Electronic Media; Audio and Podcast Reporting**

(Perm req)

Credits: 3

Grading Method: Regular, Pass-Fail, Audit

Advanced research, analysis and/or practice of selected topics in broadcast journalism.

Prerequisite: JOUR360. Restricted to students with less than 105 credits. Students will learn the tools needed to report and produce short and long-form audio storytelling, including writing, reporting, interviewing, production, editing, hosting and delivery. Field reporting and audio gathering outside of class is required, along with writing and mixing broadcast-quality audio stories. Together the class will produce a complete radio broadcast on deadline from newscasts to live interviews to mixed radio pieces. Various interests in audio reporting welcome and encouraged.

0101	Jennifer Beemsterboer M 5:30pm - 8:15pm	Seats (Total: 3) KNI 3210

JOUR368V **Topics in Broadcast and Electronic Media; Advanced Video Storytelling**

(Perm req)

Credits: 3

Grading Method: Regular, Pass-Fail, Audit

Advanced research, analysis and/or practice of selected topics in broadcast journalism.

Prerequisite: JOUR361 and permission of instructor. Students will learn advanced storytelling, shooting and editing techniques for multi-platform video, using character-driven, natural sound packages to produce in-depth projects on a common theme.

0101	Bethany Swain M 2:45pm - 5:45pm	Seats (Total: 7) TWS 0222B

JOUR368Y **Topics in Broadcast and Electronic Media; Sports Producing**

(Perm req)

Credits: 3

Grading Method: Regular, Pass-Fail, Audit

Advanced research, analysis and/or practice of selected topics in broadcast journalism.

Prerequisite: JOUR262 and JOUR360; or JOUR320. This class will take an analytical look at sports TV and sports content by deconstructing shows We will examine the producer's role in creating the look, feel and direction of shows and learn how to choose a lead story, how to "tease" and the importance of identifying and telling good stories. We will will watch live televised sporting events to better understand the techniques used by directors and producers. Students will get hands-on experience with BTN2GO and learn all aspects of live game production.

0101	Joseph Yasharoff W 7:00pm - 9:45pm	Seats (Total: 12) KNI 2103

JOUR370 **Photojournalism**

(Perm req)

Credits: 3

Grading Method: Regular, Pass-Fail, Audit

Prerequisite: Must have completed or be concurrently enrolled in JOUR201. Restriction: Permission of JOUR-Philip Merrill College of Journalism. Credit only granted for: JOUR 368P, JOUR 370 or JOUR 670. Formerly: JOUR 368P. Additional information: Students are required to borrow, rent or purchase a 35mm digital camera. Contact department for camera specifications.

Examining the basics of shooting, editing and storytelling with still photos taken with 35mm digital cameras. Students shoot portraits, feature photos and action shots. Final project is a photo story/essay.

0101	Graham Cullen Th 9:00am - 11:45am	Seats (Total: 12) KNI 1101

0201	Jonathan Sham M 7:00pm - 9:45pm	Seats (Total: 12) KNI 2103
0301	Timothy Jacobsen F 12:00pm - 2:45pm	Seats (Total: 12) KNI 1101
0401	Timothy Jacobsen W 4:00pm - 6:45pm	Seats (Total: 12) KNI 2103
0501	Graham Cullen Th 1:00pm - 3:45pm	Seats (Total: 12) KNI 2103
0601	Sora Devore Tu 7:00pm - 9:45pm	Seats (Total: 12) KNI 1101
0701	Mauro Whiteman F 9:00am - 11:45am	Seats (Total: 12) KNI 2103

JOUR371 **Feature Writing**

(Perm req)

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Prerequisite: JOUR320.

Research and writing feature articles.

0101	DeNeen Brown MW 2:00pm - 3:15pm	Seats (Total: 15) KNI 1101

JOUR382 **Sports Writing and Reporting**

(Perm req)

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Prerequisite: JOUR320; and permission of JOUR-Philip Merrill College of Journalism. Credit only granted for: JOUR328B or JOUR382. Formerly: JOUR328B.

Gives students full and wide-ranging instruction in all aspects of sports reporting and writing, including how to report, write, edit and lay out sports stories, incorporating photography and multimedia. We will also discuss ethics, objectivity, fairness and the future of sports journalism.

0101	Kevin Blackistone MW 10:00am - 11:15am	Seats (Total: 11) KNI 1206

JOUR396 **Supervised Internship**

(Perm req)

Credits: 2 Grading Method: Regular, Pass-Fail

Prerequisite: Must have earned a grade of C- or better in JOUR320. Restriction: Must be in a major in JOUR-Philip Merrill College of Journalism. Credit only granted for: JOUR326, JOUR366, or JOUR396.

Students will complete a minimum of 90 hours in a supervised journalism internship over a minimum of 10 weeks in spring and fall, and eight weeks in summer. Emphasis is on relating academic training to professional experience. Students may pick up an internship proposal form in KNI 1100, have their internship supervisor fill it out, and meet with the college's internship director to receive permission to register. No requests to register after the Schedule Adjustment Period will be granted. This requirement would affect incoming freshmen from the fall 2012 class.

0101	Adrianne Flynn	Seats (Total: 75)
	Contact instructor or department for details.	

JOUR398 **Independent Study**

(Perm req)

Credits: 1-3 Grading Method: Regular, Pass-Fail

Individual projects in journalism.

Contact department for information to register for this course.

JOUR400 **Media Law**

(Perm req)

Credits: 3 Grading Method: Regular, Pass-Fail

Prerequisite: JOUR320, JOUR360, or JOUR501. Restriction: Junior standing or higher.

Legal rights and constraints of mass media; libel, privacy, copyright, monopoly, contempt, and other aspects of the law applied to mass communication. Previous study of the law not required.

0101	LaMonte Summers	Seats (Total: 35)
	TuTh 3:30pm - 4:45pm	KNI 1208

JOUR402 **Journalism Law and Ethics**

(Perm req)

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Prerequisite: JOUR201. Credit only granted for: JOUR402 OR JOUR400 and JOUR300.

An examination of the legal rights and ethical problems and constraints of mass media, including libel, privacy, copyright, monopoly and contempt.

0101	LaMonte Summers	Seats (Total: 36)
	TuTh 12:30pm - 1:45pm	KNI 3202

JOUR405 **Breaking News With Numbers: Statistics for Journalists**

(Perm req)

Credits: 3 Grading Method: Regular, Pass-Fail, Audit General Education: FSAR

Prerequisite: Minimum grade of C- in JOUR201; and (MATH107 or MATH110; or must have completed a higher level math course). Or have permission of the instructor. Restriction: Must be in a major in JOUR-Philip Merrill College of Journalism. Credit only granted for: BIOM301, BMGT230, CCJS200, ECON230, ECON321, EDMS451, GEOG306, GEOL351, GVPT422, INST314, JOUR405, PSYC200 or SOCY201. (These courses do not necessarily meet the same major requirements-check with your advisor to see which of these courses will count for your major).

Common statistical tools, software and data visualization techniques will be used to allow students to analyze data and solve problems relevant to reporting and writing about politics, sports, criminal justice, business and other fields.

0101	Tom Brune	Seats (Total: 38)
	Class time/details on ELMs	ONLINE

JOUR443 **Sports, Society, Culture and the Media**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Restriction: Junior standing or higher. Credit only granted for: JOUR459G or JOUR443. Formerly: JOUR459G.

Designed to explore how sports, society, culture and the media critically relate to each other and the vast audiences of fans and interested parties. Students will study how journalists impact change; how sports shape culture; and how sports are seen throughout the world. College sports, children and sports, the business of sports, the history of sports media and the future of sports in society will be studied as well.

0101	George Solomon	Seats (Total: 14)
	M 12:00pm - 2:45pm	KNI 1206

JOUR451 **Advertising and Society**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Restriction: Junior standing or higher.

Advertising as an institution with manifest economic purposes and latent social effects. Influences of advertising on people, and related issues of ethics and social responsibility.

0201	Kelly Stepno	Seats (Total: 15)
	M 2:00pm - 4:45pm	KNI 3202

JOUR452 **Women in the Media**

Credits: 3 | Grading Method: Regular, Pass-Fail, Audit | , D | General Education: DVUP

Cross-listed with WMST452. Credit only granted for: JOUR452 or WMST452.

Participation and portrayal of women in the mass media from colonial to contemporary times.

0101	Renee Poussaint, Bobbie Foster	Seats (Total: 30)
	TuTh 2:00pm - 3:15pm	KNI 1103

JOUR453 **News Coverage of Racial Issues**

Credits: 3 | Grading Method: Regular, Pass-Fail, Audit | , D | General Education: DVUP

Restriction: Junior standing or higher.

Analysis of news media coverage of issues relating to racial minorities in the United States, with special attention to Hispanics, Asian Americans, African Americans and Native Americans.

0101	Anne Rosen	Seats (Total: 25)
	TuTh 9:30am - 10:45am	KNI 3202

JOUR455 **Media Entrepreneurship**

Credits: 3 | Grading Method: Regular, Pass-Fail, Audit

Credit only granted for: JOUR459E or JOUR455. Formerly: JOUR459E.

Basic business and entrepreneurship concepts will be covered and will explore how technology is transforming the business of media. Students develop and pitch ideas for media businesses, learn startup basics, do exercises in Internet advertising and business plan analysis, use social networks and other digital communication tools, and perform other hands-on exercises in business development and presentation.

PCJ1	Thomas Davidson Sa 1:30pm - 5:15pm	Seats (Total: 15) KNI 2103
	Restricted to students in the GCPS in Multimedia Journalism Program.	

JOUR456 **Literature in Journalism**

Credits: 3 | Grading Method: Regular, Pass-Fail, Audit | General Education: DSHU

Credit only granted for: JOUR456 or JOUR673.

From Truman Capote's In Cold Blood to Mark Bowden's Black Hawk Down, students will examine how literary works can help writers approach a subject in a different way than more traditional forms of journalism, including the advantages and limitations of the style.

0101	Kevin Klose MW 11:00am - 12:15pm	Seats (Total: 26) KNI 1103

JOUR458B **Special Topics in Journalism; Sports Media Today**

Credits: 3 | Grading Method: Regular, Pass-Fail, Audit

Issues of special concerns and current interest.

Students will discuss working with various organizations' communications/media relations staff, coaches and players; distributing news of the organizations; and creating/maintaining methods for disseminating that news to the public in an honest and forthright manner. Also, traditional, digital and social media elements will be explored. Restriction: Junior Standing or higher.

0101	Rose DiPaula W 9:00am - 11:45am	Seats (Total: 30) SPH 0307

JOUR458L **Special Topics in Journalism; Leadership: Making a Difference**

Credits: 3 | Grading Method: Regular, Pass-Fail, Audit

Issues of special concerns and current interest.

This course introduces and analyzes the careers of leaders whose lives, words, and deeds have shaped today's world. Participants will engage in explorations of the challenges, values, and actions of individual leaders whose efforts have strengthened civil society and spirit in these times.

0101	Kevin Klose	Seats (Total: 22)
	MW 9:30am - 10:45am	KNI 1103

JOUR458P **Special Topics in Journalism; Climate Security**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Issues of special concerns and current interest.

Climate change is the single biggest challenge humanity faces and, for journalists and media organizations, deciding how to cover it presents its own set of challenges. This course explores journalism paradigms for covering climate, focusing on security including global, national, community, and personal security.

0101	John McQuaid	Seats (Total: 18)
	W 1:30pm - 4:15pm	KNI 1206

JOUR459B **Special Topics in Journalism; European Mass Media**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Issues of special concern and current interest. Open to all students.

Contact department for information to register for this course.

JOUR459D **Special Topics in Journalism; Information Warfare: Disinformation, Fake News and Journalism Safety**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Issues of special concern and current interest. Open to all students.

This course will examine the global phenomenon of spread of "fake news", types of disinformation (mis-information, propaganda, manipulation), historical origins, tactics used by governments, interest groups and businesses and the way how the new media ecosystem is changing perception of the world by media consumers and how it affects journalists. In this environment journalists are also exposed to additional threats - legal, digital and psychological. The course will explore the basics of psychology of trauma and digital safety for media professionals.

0101	Michael Mirny	Seats (Total: 15)
	Tu 11:30am - 2:15pm	KNI 3200

JOUR459F **Special Topics in Journalism; Media in War and Crisis**

Credits: 3

Grading Method: Regular, Pass-Fail, Audit

Issues of special concern and current interest. Open to all students.

Contact department for information to register for this course.

JOUR459K **Special Topics in Journalism; Global Media and International Journalism in the 21st Century**

Credits: 1-3

Grading Method: Regular, Pass-Fail, Audit

Issues of special concern and current interest. Open to all students.

Contact department for information to register for this course.

JOUR459T **Special Topics in Journalism; Press Freedom and Fake News: A Global Battle for Political Power**

Credits: 3

Grading Method: Regular, Pass-Fail, Audit

Issues of special concern and current interest. Open to all students.

This class will examine the emerging tensions and challenges of maintaining the flow of accurate, independent news to the public using four case studies: The United States, Russia and two others. We will examine the notion of "press freedom" as a basic human right, opponents of that view, and global trends in the last decade that are undermining that freedom, including the contradictory role the U.S. has played in both strengthening and weakening press freedom in emerging democracies. Then, we will explore forms of censorship, the state's and private industry's role in the shaping of the media environment and the rise of disinformation/fake news.

0101	Dana Priest	Seats (Total: 13)
	M 2:30pm - 5:15pm	KNI 3200

JOUR472 **Data Journalism**

(Perm req)

Credits: 3

Grading Method: Regular, Pass-Fail

Prerequisite: JOUR320 or JOUR360. Jointly offered with JOUR772. Credit only granted for: JOUR472 or JOUR772.

A practical, skills-based course in the basics of modern data journalism, data analysis and data storytelling. Students will learn to use data programming, statistical analysis, visualization tools and investigative reporting techniques to unearth key facts, patterns and proof in storytelling.

Prerequisite: JOUR320 or JOUR360. Computer and online data acquisition; analytical methods for writing and reporting news. Students must contact Assistant Dean Josh Madden for permission to register.

0101	Sean Mussenden	Seats (Total: 1)	
	Tu 11:30am - 1:50pm	KNI 2103	
	Class time/details on ELMs	ONLINE	Lab

JOUR479C **Special Topics in Data Gathering and Analysis; Understanding Business and the Economy**

(Perm req)

Credits: 3 Grading Method: Regular, Pass-Fail

Special research topics for reporting and writing.

Prerequisite: Must have completed a university statistics course. This class, designed for journalism and non-journalism undergraduates, introduces students to the major economic and business themes that dominate news coverage and explains how reporters gather and analyze data to write these stories. Topics discussed will include: income inequality, economic growth, the stock market, investing, immigration, international trade, corporate strategy, real estate, the Federal Reserve and mergers & acquisitions. This class will be helpful to students who want to understand how the economy and the stock market work, why globalization is shifting and how the biggest corporations--including technology companies--compete for market share.

0101	Constance Ford	Seats (Total: 18)
	MW 3:30pm - 4:45pm	KNI 2105

JOUR479E **Special Topics in Data Gathering and Analysis; Political Analysis**

(Perm req)

Credits: 3 Grading Method: Regular, Pass-Fail

Special research topics for reporting and writing.

Prerequisite: Must have completed a university statistics course. Students are provided with advanced research skills to analyze elections, including political parties, candidates, news coverage, and voters. This will include a review of studies of election coverage as well as learning how to deploy a range of research tools in order to gain deeper understanding of elections and voting behavior. Students will learn how to conduct comparative analysis of campaign materials, analyze candidate performance, assess media treatment of candidates, forecast results as well as introduce students to a range of analytical tools for tracking data in traditional and social media.

0101	Sarah Oates	Seats (Total: 18)
	MW 11:00am - 12:15pm	KNI 1101

JOUR479I **Special Topics in Data Gathering and Analysis; Seeing - Media, Images and Design**

(Perm req)

Credits: 3 Grading Method: Regular, Pass-Fail

Special research topics for reporting and writing.

Prerequisite: A university statistics course. Students will be introduced to the expanding ways the "visual" is embedded in all we do and all that we are. Students will tackle challenges of why "seeing" matters and in so doing will learn visual theory. Media have become less about words and more about sight: Students will consider the ethics and impact of images on people and politics and turn those lessons into an examination of the methods of research projects where images are the data. What do we see? What don't we see? Students will analyze and deconstruct images created by others and use those insights to inform their own creation of a culminating visual journalism research project.

0101	Susan Moeller	Seats (Total: 18)
	TuTh 11:00am - 12:15pm	KNI 2105

JOUR479O **Special Topics in Data Gathering and Analysis; Understanding Audiences**

(Perm req)

Credits: 3 Grading Method: Regular, Pass-Fail

Special research topics for reporting and writing.

Prerequisite: Must have completed a university statistics course. As journalism evolves, it may be more important than ever to understand what were once simply called "audiences"- who they are, how they consume news, and what that engagement means for them and for society. Students will learn to think critically about news audiences and contemporary issues in audience research.

0101	Ronald Yaros	Seats (Total: 18)
	TuTh 2:00pm - 3:15pm	KNI 2105

JOUR480 **Capstone Colloquium: The Business of News**

(Perm req)

Credits: 1 Grading Method: Regular, Pass-Fail, Audit

Restriction: Must be in a major in JOUR-Philip Merrill College of Journalism; and junior standing or higher; and permission of JOUR-Philip Merrill College of Journalism.

Students will learn the basic news business concepts and examine how revenue and cost structures for media businesses are evolving in new directions. Topics include basic principles and concepts that drive media businesses in the Internet age, including revenue sources, dynamics of online advertising and subscriptions, mobile media strategies, user metrics, engaging audiences, and market dynamics.

0101	Constance Ford	Seats (Total: 60)
	Meets January 27, 2020 - March 14, 2020	
	M 6:00pm - 7:40pm	KNI 1208

0201	Constance Ford **Meets March 23, 2020 - May 12, 2020** M 6:00pm - 7:40pm	Seats (Total: 60) KNI 1208

JOUR603 **News Videography**

(Perm req)

Credits: 3

Grading Method: Regular, Audit, Sat-Fail

Prerequisite: JOUR504; and permission of Journalism College required. Restriction: Permission of JOUR-Philip Merrill College of Journalism. Jointly offered with JOUR262. Credit only granted for: JOUR503 or JOUR603. Formerly: JOUR503.

Introduction to shooting, editing and production of video stories for broadcast and the Web; includes newsgathering in the field.

0101	Bethany Swain MW 10:00am - 11:50am	Seats (Total: 1) TWS 0222B

JOUR620 **Public Affairs Reporting**

(Perm req)

Credits: 3

Grading Method: Regular, Audit, Sat-Fail

Prerequisite: JOUR501; or permission of JOUR-Philip Merrill College of Journalism.

Designed to add to and sharpen the skills learned in JOUR501. It is primarily an introduction to "beat" reporting that allows students to sample the most common new beats while reporting and writing on deadline. Students are required to develop and hone their multimedia skills by reporting in a variety of media.

0101	Christine Harvey TuTh 9:30am - 11:20am	Seats (Total: 14) KNI 2103
0201	Adrianne Flynn TuTh 9:30am - 11:20am	Seats (Total: 16) KNI 2107

JOUR623 **Mobile Journalism**

Credits: 3

Grading Method: Regular, Audit, Sat-Fail

Prerequisite: Students must have basic computer skills. Credit only granted for: JOUR689M or JOUR623. Formerly: JOUR689M.

A review of several mobile applications and the "hands-on" skills needed to collect and share news in the field. First, students learn how to remotely post information to blogs and social networks. Students then learn and practice the latest location-based production techniques using web services on wireless laptops and mobile devices. Students use laptops (and their own "SmartPhone") to record, edit and upload audio and video.

PCJ1	Ronald Yaros	Seats (Total: 15)
	Sa 8:30am - 12:15pm	KNI 3200
	Restricted to students in the GCPS in Multimedia Journalism Program.	

JOUR625 **Advanced Capital News Service Bureau**

(Perm req)

Credits: 6 Grading Method: Regular, Audit, Sat-Fail

Prerequisite: JOUR620; and permission of JOUR-Philip Merrill College of Journalism. Credit only granted for: JOUR625 or JOUR729. Formerly: JOUR729.

Advanced journalism training. Students report as part of College's Capital News Service program.

Washington, D.C. Bureau students register for section 0101. Annapolis Bureau students register for section 0201.

0101	James Carroll	Seats (Total: 10)
	Contact instructor or department for details.	
0201	Karen Denny	Seats (Total: 10)
	Contact instructor or department for details.	

JOUR626 **Advanced Howard Center Investigations**

(Perm req)

Credits: 3 Grading Method: Regular, Sat-Fail

Advanced journalism training. Students work on in-depth investigative projects as part of the College's Howard Center for Investigative Journalism.

0101	Kathy Best	Seats (Total: 4)
	Contact instructor or department for details.	

JOUR627 **Urban Affairs Reporting**

(Perm req)

Credits: 3 Grading Method: Regular, Audit, Sat-Fail

Prerequisite: JOUR501; and permission of JOUR-Philip Merrill College of Journalism. Corequisite: JOUR620; or permission of JOUR-Philip Merrill College of Journalism. Jointly offered with JOUR327. Credit only granted for: JOUR327 or JOUR627.

Students are immersed in coverage of issues affecting cities, working on a semester-long multi-platform reporting project based in Baltimore.

0101	Sandra Banisky M 1:45pm - 4:30pm	Seats (Total: 5) Location: TBA

JOUR628B **Specialized Topics in News Writing and Reporting; Sports Reporting and Writing**

(Perm req)

Credits: 3

Grading Method: Regular, Audit, Sat-Fail

Advanced training and practice in writing and reporting news. Repeatable to a maximum of six credits provided the content differs.

Prerequisite: JOUR620. This course will give students full and wide-ranging instruction in all aspects of sports reporting and writing, from the history of the craft to its mechanics, including how to prepare to report and write sports stories, incorporating photography, audio, video and interactive mechanics and the laying out and editing of them. We will also discuss ethics, objectivity, fairness and the future of sports journalism.

0101	Kevin Blackistone MW 10:00am - 11:15am	Seats (Total: 7) KNI 1206

JOUR628M **Specialized Topics in News Writing and Reporting; Magazine Journalism**

(Perm req)

Credits: 3

Grading Method: Regular, Audit, Sat-Fail

Advanced training and practice in writing and reporting news. Repeatable to a maximum of six credits provided the content differs.

Prerequisite: JOUR620. Students will be introduced to the magazine publishing industry, which grew over the last decade despite the economic downturn and now faces new challenges from emerging digital platforms and changing consumer habits.

0101	Sarah Schaffer Tu 5:00pm - 7:45pm	Seats (Total: 2) KNI 2103

JOUR628N **Specialized Topics in News Writing and Reporting; National Security Reporting**

(Perm req)

Credits: 3

Grading Method: Regular, Audit, Sat-Fail

Advanced training and practice in writing and reporting news. Repeatable to a maximum of six credits provided the content differs.

Prerequisite: JOUR620. Students will conduct in-depth, investigative reporting on a national security-related issue that will teach them to deepen their source-cultivation and rapport-building and their understanding of national security issues. As part of the course, they will also look at how Washington works and the importance of public affairs reporting in the democratic policy making process.

0101	Dana Priest	Seats (Total: 5)
	M 9:45am - 12:30pm	KNI 3200

JOUR628P **Specialized Topics in News Writing and Reporting; Applied Entrepreneurial Journalism**

(Perm req)

Credits: 3

Grading Method: Regular, Audit, Sat-Fail

Advanced training and practice in writing and reporting news. Repeatable to a maximum of six credits provided the content differs.

Prerequisite: JOUR501. Students will learn how to ideate and execute ambitious media projects in small groups from start to finish. We ll cover product and design thinking frameworks, project management techniques and business fundamentals to understand how to successfully launch a project as a working journalist.

0101	Elite Truong	Seats (Total: 6)
	M 6:00pm - 8:45pm	KNI 3200

JOUR628R **Specialized Topics in News Writing and Reporting; Business and Economics**

(Perm req)

Credits: 3

Grading Method: Regular, Sat-Fail

Advanced training and practice in writing and reporting news. Repeatable to a maximum of six credits provided the content differs.

Prerequisite: JOUR620. Students will explore why economic and business themes are among the top stories generating reader interest. Topics vary each semester but can focus on the economic impact of immigration, employment, income inequality, wage stagnation, trade wars and affordable housing. Students will learn to identify newsworthy stories and interpret and integrate numbers and financial data into stories in a compelling way.

0101	Constance Ford	Seats (Total: 2)
	W 10:00am - 12:45pm	KNI 2107

JOUR652 **Interactive Design and Development**

(Perm req)

Credits: 3

Grading Method: Regular, Audit, Sat-Fail

Corequisite: Offered to students enrolled in the journalism master's degree or certificate. Master's degree students should take JOUR 504 as a pre- or co-requisite. Certificate students are encouraged to take JOUR 604 as a co-requisite. Restriction: Must be in a major in JOUR-Philip Merrill College of Journalism. Credit only granted for: JOUR652 or JOUR352.

Conceptualize, wireframe, design and build responsive Web pages using HTML, style sheets and other coding tools; work with open source interactive tools and JavaScript libraries to create charts, timelines and maps to tell stories.

0201	Gagan Nirula Th 7:00pm - 9:45pm	Seats (Total: 1) KNI 1101
0501	Kalani Gordon Th 6:30pm - 9:15pm	Seats (Total: 3) KNI 2105

JOUR655 **Advanced Online News Bureau**

(Perm req)

Credits: 6

Grading Method: Regular, Audit, Sat-Fail

Prerequisite: JOUR603 or JOUR620; and (JOUR504 and JOUR652). Or permission of JOUR-Philip Merrill College of Journalism.

Advanced online journalism training. Students work as online reporters, editors and producers for a news site. Students also package copy from the print and broadcast news bureaus.

0101	Adam Marton Contact instructor or department for details.	Seats (Total: 4)
0201	Alexander Pyles Contact instructor or department for details.	Seats (Total: 4)

JOUR661 **Television Reporting and Production**

(Perm req)

Credits: 3

Grading Method: Regular, Audit, Sat-Fail

Prerequisite: JOUR603; or students who have taken courses with comparable content may contact the department. Restriction: Must not be in Journalism Studies (Doctoral) program.

Reporting, writing, editing and production of broadcast news.

0101	Joshua Davidsburg TuTh 2:00pm - 3:50pm	Seats (Total: 9) TWS 0222B

JOUR664 **Radio Broadcasting**

(Perm req)

Credits: 3

Grading Method: Regular, Audit, Sat-Fail

Prerequisite: JOUR501 and JOUR603; or permission of JOUR-Philip Merrill College of Journalism. Restriction: Permission of JOUR-Philip Merrill College of Journalism.

Students apply news reporting skills to prepare and produce a weekly radio news magazine program.

0101	Robert Little	Seats (Total: 1)
	W 5:30pm - 8:15pm	KNI 3210

JOUR667 **Broadcast News Bureau**

(Perm req)

Credits: 6

Grading Method: Regular, Audit, Sat-Fail

Prerequisite: JOUR503; or students who have taken courses with comparable content may contact the department. And permission of JOUR-Philip Merrill College of Journalism.

Advanced broadcast journalism training. Students report as part of the College's Capital News Service program.

0101	Mel Coffee	Seats (Total: 6)
	Contact instructor or department for details.	

JOUR668F **Topics in Broadcasting and Electronic Media; Field Producing**

(Perm req)

Credits: 3

Grading Method: Regular, Audit, Sat-Fail

Advance research and analysis of selected topics in broadcast journalism.

0101	Thomas Bettag	Seats (Total: 1)
	Contact instructor or department for details.	

JOUR668I **Topics in Broadcasting and Electronic Media; Designing Stories with Motion Graphics**

(Perm req)

Credits: 3

Grading Method: Regular, Audit, Sat-Fail

Advance research and analysis of selected topics in broadcast journalism.

Prerequisite: JOUR504 or JOUR603. In this course, students will learn how to create motion graphics that turn data and facts into visually compelling animated stories. Students will learn theories and practices of animation, design and visual journalism. After completing this course, students will have a solid grasp of the following software applications: Adobe After Effects, Adobe Illustrator and Processing.

0101	Krishnan Vasudevan	Seats (Total: 4)
	MW 12:30pm - 1:45pm	KNI 1101

JOUR668K **Topics in Broadcasting and Electronic Media; Video Innovation**

(Perm req)

Credits: 3

Grading Method: Regular, Audit, Sat-Fail

Advance research and analysis of selected topics in broadcast journalism.

Prerequisite: JOUR661 and permission of the instructor (jdavidsb@umd.edu). Students will explore the intersection between social media, video and a live broadcast by creating new and innovative ways to "broadcast" news to an audience. The class will encourage an entrepreneurial spirit and give students the opportunity to produce a show from scratch, with content aired on UMTV and online. In addition to creating television, students will support the broadcast arm of Capital News Service by managing volunteers, filling in on the studio staff and producing special projects and graphics when necessary.

0101	Joshua Davidsburg	Seats (Total: 4)
	Tu 4:00pm - 6:45pm	TWS 0222B

JOUR668L **Topics in Broadcasting and Electronic Media; Audio and Podcast Reporting**

(Perm req)

Credits: 3

Grading Method: Regular, Audit, Sat-Fail

Advance research and analysis of selected topics in broadcast journalism.

Prerequisite: JOUR660 or permission of Associate Dean Rafael Lorente. Students will learn the tools needed to report and produce short and long-form audio storytelling, including writing, reporting, interviewing , production, editing, hosting and delivery. Field reporting and audio gathering outside of class is required, along with writing and mixing broadcast-quality audio stories. Together the class will produce a complete radio broadcast on deadline from newscasts to live interviews to mixed radio pieces. Various interests in audio reporting welcome and encouraged.

0101	Jennifer Beemsterboer	Seats (Total: 8)
	M 5:30pm - 8:15pm	KNI 3210

JOUR668V **Topics in Broadcasting and Electronic Media; Advanced Video Storytelling**

(Perm req)

Credits: 3

Grading Method: Regular, Audit, Sat-Fail

Advance research and analysis of selected topics in broadcast journalism.

Prerequisite: JOUR661 and permission of instructor. Students will learn advanced storytelling, shooting and editing techniques for multi-platform video, using character-driven, natural sound packages to produce in-depth projects on a common theme.

0101	Bethany Swain	Seats (Total: 3)
	M 2:45pm - 5:45pm	TWS 0222B

JOUR689F **News Coverage of Specialized Topics; Feature Writing**

(Perm req)

Credits: 3 Grading Method: Regular, Audit, Sat-Fail

Advance training and practice in writing and reporting news in on specialized field of interest.

Prerequisite: JOUR620. Research and writing feature articles.

0101	DeNeen Brown	Seats (Total: 3)
	MW 2:00pm - 3:15pm	KNI 1101

JOUR698 **Special Problems in Communication**

(Perm req)

Credits: 1-3 Grading Method: Regular, Audit, Sat-Fail

Independent study in area of the student's interest.

Contact department for information to register for this course.

JOUR698I **Special Problems in Communication; Advanced Public Affairs Reporting/Investigative Journalism**

(Perm req)

Credits: 3 Grading Method: Regular, Audit, Sat-Fail

Independent study in area of the student's interest.

Prerequisites: JOUR501. Students will learn the essentials of accountability reporting while producing a publishable, in-depth project on an issue with national significance and impact on people's lives. Substantial fieldwork, teamwork and persistence are required.

0101	Deborah Nelson	Seats (Total: 9)
	Contact instructor or department for details.	

JOUR702 **Journalism Law and Ethics**

(Perm req)

Credits: 3

Grading Method: Regular, Audit, Sat-Fail

Restriction: Must be in one of the following programs (Journalism - Master (Master's); Journalism Studies (Doctoral)) ; or permission of JOUR-Philip Merrill College of Journalism. Credit only granted for: JOUR400, JOUR 600, JOUR700, or JOUR 702.

An examination of the legal rights and ethical problems and constraints of mass media, including libel, privacy, copyright, monopoly and contempt.

0101	LaMonte Summers TuTh 12:30pm - 1:45pm	Seats (Total: 1) KNI 3202	

JOUR772 **Data Journalism**

(Perm req)

Credits: 3

Grading Method: Regular, Sat-Fail

Prerequisite: Must have completed or be concurrently enrolled in JOUR501; or students who have taken courses with comparable content may contact the department. Credit only granted for: JOUR472 or JOUR772.

A practical, skills-based course in the basics of modern data journalism, data analysis and data storytelling. Students will learn to use data programming, statistical analysis, visualization tools and investigative reporting techniques to unearth key facts, patterns and proof in storytelling.

Students must contact Associate Dean Rafael Lorente (rlorente@umd.edu) for permission to register.

0101	Sean Mussenden Tu 11:30am - 1:50pm Class time/details on ELMs	Seats (Total: 17) KNI 2103 ONLINE	 Lab

JOUR775 **Quantitative Methods in Journalism and Public Communication Research**

Credits: 3

Grading Method: Regular, Audit, Sat-Fail

Credit only granted for: JOUR701 or JOUR775. Formerly: JOUR701.

Logic and methods of quantitative data collection and statistical analysis as applied to journalism and public communication studies.

0101	Ronald Yaros Th 11:00am - 1:45pm	Seats (Total: 8) KNI 3207

JOUR776 **Qualitative Research Methods in Journalism and Public Communication**

Credits: 3 Grading Method: Regular, Audit, Sat-Fail

Credit only granted for: JOUR711 or JOUR776. Formerly: JOUR711.

Methods of historical, critical and field research in journalism and public communication. Formulation of significant research questions, systematic collection of bibliographic and phenomenal information, formulating substanial claims, organizing and writing research for disciplinary outlets.

0101	Linda Steiner	Seats (Total: 8)
	W 9:00am - 11:45am	KNI 2109

JOUR798 **Master's Professional Fieldwork**

(Perm req)

Credits: 2-6 Grading Method: Sat-Fail

Research for and preparation of news articles or programs for use in the media. Analysis of fieldwork experience using communication theory and research results. Fieldwork may be done independently or as an internship. Repeatable to a maximum of six credits.

Contact department for information to register for this course.

JOUR799 **Master's Thesis Research**

Credits: 1-6 Grading Method: Sat-Fail

Contact department for information to register for this course.

JOUR801 **Advanced Public Communication Theory**

(Perm req)

Credits: 3 Grading Method: Regular, Sat-Fail

Prerequisite: JOUR601; or students who have taken courses with comparable content may contact the department. Credit only granted for: JOUR601 or JOUR801.

Advanced selected survey of communication & media theory.

0101	Krishnan Vasudevan	Seats (Total: 12)
	W 3:00pm - 5:45pm	KNI 1109

JOUR888 **Doctoral Professional Field Work**

Credits: 3-9 Grading Method: Regular, Audit, Sat-Fail

Critical analysis of a phase of a professional field in journalism and public communication. Analysis of professional activity through personal observation. Evaluation of the purpose, process, effectiveness, and efficiency of professional activity. Recommendations for training and further research.

Contact department for information to register for this course.

JOUR889 **Doctoral Tutorial in Journalism and Public Communication**

Credits: 3-9 Grading Method: Regular, Audit, Sat-Fail

Individual research in journalism and public communication.

Contact department for information to register for this course.

JOUR898 **Pre-Candidacy Research**

Credits: 1-8 Grading Method: Regular, Sat-Fail

Contact department for information to register for this course.

JOUR899 **Doctoral Dissertation Research in Journalism and Mass Communication**

(Perm req)

Credits: 6 Grading Method: Sat-Fail

Contact department for information to register for this course.

JWST Jewish Studies Spring 2020

JWST219C **Special Topics in Jewish Studies; Contemporary Israel**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Contact department for information to register for this course.

JWST219D **Special Topics in Jewish Studies; Women in Israel**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Contact department for information to register for this course.

JWST219E **Special Topics in Jewish Studies; Writing Israel**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Contact department for information to register for this course.

JWST225 **Religions of the Ancient Near East**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit General Education: DSHU

Cross-listed with: HIST219I, RELS219A. Credit only granted for: JWST225, HIST219I, or RELS219A.

Introduction to ancient Near Eastern religious systems and mythology, from the third millennium BCE through the fourth century BCE. Particular emphasis on Mesopotamia and ancient Israel.

Cross-listed with RELS219A and HIST219I.

0101	Matthew Suriano	Seats (Total: 40)
	TuTh 11:00am - 12:15pm	PLS 1119

JWST230 **Inventing Traditions: The Making of Rabbinic Judaism**

Credits: 3	Grading Method: Regular, Pass-Fail, Audit	CORE: SH, D	General Education: DSHS, DSHU, SCIS

Cross-listed with: HIST281, RELS219C. Credit only granted for: HIST281 or JWST230.

Introduces the dramatic literary and cultural (as well as political and demographic) innovations that reshaped Judaism in late antiquity. Examines the fundamental works and genres of rabbinic literature and the religious movement that produced them. Special emphasis on the rabbinic uses of "tradition" to enhance authority and legitimacy, and to foster group identity.

Additional Note: For Spring 2020; Cross-listed with HIST281 and RELS219C . Credit granted for HIST281, JWST230, or RELS219C.

0101	Hayim Lapin	Seats (Total: 20)	
	TuTh 9:30am - 10:20am Class time/details on ELMs	TLF 2108 ONLINE	Discussion

JWST235 **History of the Jewish People II**

Credits: 3	Grading Method: Regular, Pass-Fail, Audit	CORE: SH, D	General Education: DSHS, DVUP

Credit only granted for: HIST283, HIST283H, JWST235, or JWST235H.

Political, economic, social and cultural development within Jewish history from the end of the Middle Ages to the present. Special attention to the twentieth century developments including the Nazi Holocaust and its aftermath, the Zionist movement and the creation of the State of Israel, and the rise of the contemporary American-Jewish community.

0101	Rachel Manekin	Seats (Total: 30)
	Tu 3:30pm - 6:00pm	SQH 2120

JWST250 **Fundamental Concepts of Judaism**

Credits: 3	Grading Method: Regular, Pass-Fail, Audit	CORE: HO	General Education: DSHU

Cross-listed with PHIL234, RELS250. Credit only granted for: JWST250, PHIL234, or RELS250.

A conceptional introduction to Judaism, analyzing its fundamental concepts from both analytical and historical perspectives. Discussion of "normative" Judaism as well as other conceptions of Judaism. Topics include: God, the Jewish people, authority, ethics, the sacred and the profane, particularism and universalism.

0101	Charles Manekin TuTh 9:30am - 10:45am	Seats (Total: 20) SQH 1105

JWST262 **Introduction to the Hebrew Bible/Old Testament**

Credits: 3 | Grading Method: Regular, Pass-Fail, Audit | CORE: HL | General Education: DSHU

Cross-listed with: ENGL262, HEBR298B. Credit only granted for: JWST262, HEBR293B, or ENGL262.

Origins of the Hebrew Bible (Old Testament), with attention to literary formations, archaeology, and social-political settings. Explorations of major questions, including who wrote the Bible, and when; relationships of the biblical tradition to the mythology and religious structures of ancient Israel's near eastern neighbors; and dynamics of politics, religious leadership, and law.

0101	Maxine Grossman MW 2:00pm - 3:15pm	Seats (Total: 40) HJP 2242

JWST272 **Introduction to Jewish Literature**

Credits: 3 | Grading Method: Regular, Pass-Fail, Audit | CORE: HL | General Education: DSHU, DVUP

Cross-listed with: CMLT242, ISRL249G. Credit only granted for: JWST272, CMLT242, or ISRL249G.

A survey of Jewish literature and introduction to methods of reading literature in general and Jewish literature in particular. Concern with what makes a literary corpus Jewish and other issues of canonicity. All texts in English translation.

Cross-listed with ISRL249G and CMLT242. Credit only granted for CMLT242, ISRL249G, or JWST272.

0101	Adi Mahalel TuTh 2:00pm - 3:15pm Class time/details on ELMs	Seats (Total: 40) SQH 1103 ONLINE

JWST282 **Elementary Yiddish II**

Credits: 3

Grading Method: Regular, Pass-Fail, Audit

Prerequisite: JWST281; or permission of ARHU-Meyerhoff Program & Center for Jewish Studies.

Continuation of JWST281.

JWST281 or GERM148Y or permission of department. Jointly offered with GERM149Z. Not open to students who have completed GERM149Z. Continuation of JWST281.

0101	Adi Mahalel	Seats (Total: 20)
	TuTh 12:30pm - 1:45pm Class time/details on ELMs	JMZ 1205 ONLINE
	This is a Big Ten Academic Alliance Course-Share Course.	

JWST319B **Special Topics in Jewish Studies; Arab-Israeli Relations**

Credits: 3

Grading Method: Regular, Pass-Fail, Audit

Topics in Jewish Studies.

Contact department for information to register for this course.

JWST319D **Mizrahi Identity in Israel**

Credits: 3

Grading Method: Regular, Pass-Fail, Audit

General Education: DSHS, DVUP

Cross-listed with: HIST329Z, ISRL329M. Credit only granted for: JWST319D, HIST329Z, or ISRL329M.

Cross-listed with ISRL329M and HIST329Z. Credit granted for JWST319D, ISRL329M, or HIST329Z. This course brings to light narratives of Mizrahi identity in Israel and explores the trajectory of the Mizrahi struggle for equality through its various milestones: the 1959 Wadi Salib Revolt, the Black Panthers Movement in the 1970s, the emergence of the Israeli Sephardi-Orthodox party Shas, and the new wave of Mizrahi activism in the 21st century.

0101	Shay Hazkani	Seats (Total: 20)
	TuTh 3:30pm - 4:45pm	SQH 1119

JWST319E **Special Topics in Jewish Studies; Literature of the Shoah**

Credits: 3

Grading Method: Regular, Pass-Fail, Audit

Topics in Jewish Studies.

Contact department for information to register for this course.

JWST319K **Jewry of Muscle: Zionism and Jewish Masculinity**

Credits: 3 | Grading Method: Regular, Pass-Fail, Audit | General Education: DSHU

Cross-listed with: ISRL329K. Credit only granted for: JWST319K or ISRL329K.

Cross-listed with ISRL329K. Credit granted for JWST319K or ISRL329K. Part of the Zionist cultural project involved creating a new Jewish masculinity that would replace the diasporic "sissy Jew" with a strong, healthy new "Jewry of Muscle." Using literary and cinematic sources, we will analyze how these Zionist and Israeli cultural productions served to build (and sometimes undermine) this new model of Jewish masculinity.

0101	Shirelle Doughty Class time/details on ELMs	Seats (Total: 40) ONLINE
0102	Shirelle Doughty Class time/details on ELMs	Seats (Total: 30) ONLINE

JWST324 **Biblical History and Culture**

Credits: 3 | Grading Method: Regular, Pass-Fail, Audit

Cross-listed with: HIST321. Credit only granted for: HIST321, or JWST324.

Study of the political, social, and religious development of the Jewish nation from its inception to its return from exile in Babylonia around 536 C.E. Focus on biblical texts, archeological finds, and source materials from neighboring cultures to reconstruct political history and the development of religious concepts.

0101	Matthew Suriano TuTh 2:00pm - 3:15pm	Seats (Total: 40) SQH 1119

JWST331 **Early Christianity: Jesus to Constantine**

Credits: 3 | Grading Method: Regular, Pass-Fail, Audit

Prerequisite: Must have completed one course in ancient history at the 200 level. Cross-listed with HIST320. Credit only granted for: HIST320 or JWST331.

Social and religious history of early Christianity from its origin in the first century to the reign of Constantine.

Cross-listed with HIST320. Credit granted for JWST331 or HIST320.

0101	Elizabeth Conner	Seats (Total: 40)
	TuTh 9:30am - 10:45am	TYD 2110

JWST345 **The Holocaust of European Jewry**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Cross-listed with HIST307. Credit only granted for: HIST307 or JWST345.

Roots of Nazi Jewish policy in the 1930s and during World War II: the process of destruction and the implementation of the "final solution of the Jewish problem" in Europe, and the responses made by the Jews to their concentration and annihilation.

0101	Marsha Rozenblit	Seats (Total: 40)
	TuTh 11:00am - 12:15pm	KEY 0103

JWST347 **Tradition and Change: Jewish Religion in the Modern World**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit General Education: DSHS, DSHU, DVUP

Credit only granted for: JWST347, HIST429X, or RELS419R.

An exploration of the history of the different modern Jewish religious movements that developed in Europe, starting with messianic movements and ending with Reform and Orthodoxy. Emphasis will be placed on the influence of the academic study of Judaism on the development of modern Jewish religious ideologies and practices.

Cross-listed with RELS419R and HIST429X. Credit granted for JWST347, RELS419R, or HIST429X.

0101	Rachel Manekin	Seats (Total: 40)
	TuTh 2:00pm - 3:15pm	SQH 1105

JWST369J **Special Topics in Study Abroad III; Contemprary Jewish Thought**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Special topics course taken as part of an approved study abroad program.

Contact department for information to register for this course.

JWST369R **Special Topics in Study Abroad III; Italy and the Jews: History and Culture from the Renaissanceto the Present**

Credits: 1-6 Grading Method: Regular, Pass-Fail, Audit

Special topics course taken as part of an approved study abroad program.

Contact department for information to register for this course.

JWST386 **Experiential Learning in Jewish Studies**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Prerequisite: Permission of ARHU-Meyerhoff Program & Center for Jewish Studies. Restriction: Junior standing or higher.

The Jewish Studies Program's internship program. Pre-professional experience in research, analysis, and writing related to Jewish Studies in a variety of work settings.

Students will meet with instructor for one hour per week while completing their internship.

0101	Scott Lasensky	Seats (Total: 15)
	Contact instructor or department for details.	
	Meeting time is subject to change to accommodate student course and internship schedules.	

JWST408 **Honors Seminar in Jewish Studies**

(Perm req)

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

An in-depth exploration of a theme in Jewish history, literature, culture or thought. Course subject and readings will vary from year to year, but will generally cut across periods, locations, or disciplines. Students are expected to engage the course material critically and to use the seminar as an opportunity to develop an independent research agenda.

Contact department for information to register for this course.

JWST409 **Research Seminar in Jewish Studies**

(Perm req)

Credits: 3-4 Grading Method: Regular, Pass-Fail, Audit

A capstone course for Jewish Studies. Guides students through advanced source material and subject matter, research skills, and presentation techniques. A substantive paper based on independent research and analysis is one expected outcome.

Contact department for information to register for this course.

JWST409G **Research Seminar in Jewish Studies; Jewish Women and Modernity**

Credits: 3

Grading Method: Regular, Pass-Fail, Audit

A capstone course for Jewish Studies. Guides students through advanced source material and subject matter, research skills, and presentation techniques. A substantive paper based on independent research and analysis is one expected outcome.

This research seminar will explore how Jewish women experienced modernization in Europe and America in the nineteenth and twentieth centuries. We will read memoirs of Jewish women in Germany, Russia, Poland, and the United States to see how they experienced assimilation, religious change, gender norms, education, and politics. Students will use primary sources to study Jewish women in these places and others.

0101	Marsha Rozenblit	Seats (Total: 6)
	Tu 3:30pm - 5:20pm	TLF 2101
	Contact instructor or department for details.	

JWST418 **Honors Thesis Research in Jewish Studies**

(Perm req)

Credits: 3

Grading Method: Regular, Pass-Fail

Guided research on a thesis under the supervision of the Jewish Studies faculty.

Contact department for information to register for this course.

JWST429M **Advanced Topics in Jewish Studies; American Jewry and Public Policy**

Credits: 3

Grading Method: Regular, Pass-Fail, Audit

Special topics at an advanced level for Jewish Studies. Primarily intended for majors and graduate students.

Jointly offered with GVPT368N. Credit only granted for JWST429M or GVPT3 68N. An examination of the contours of American Jewry and its engagement in public policy. Focus will be on historical development, Jewish political thought, organizational and representation structures. Ar eas of specific concern include Israel and foreign policy, as well as domestic topics, including electoral politics. A number of in-depth casestudies will be examined.

0101	Scott Lasensky	Seats (Total: 40)
	Tu 4:00pm - 6:30pm	SQH 1103

JWST432 **Jews in Medieval Times 1000-1450**

Credits: 3

Grading Method: Regular, Pass-Fail, Audit

Recommended: HIST282, JWST234, HIST330, or HIST331. Cross-listed with H IST476. Credit only granted for: HIST476 or JWST432.

Social and cultural life of Jewish communities spread throughout Islam and Christendom. Major topics include the Gaonate; kehila organization; legal, rationalist, and mystical thought; and the context of rising animosity linked to the Crusades and changing Church doctrines.

0101	Bernard Cooperman	Seats (Total: 30)
	MW 10:00am - 10:50am Class time/details on ELMs	ESJ 2309 ONLINE

JWST452 **The Golden Age of Jewish Philosophy**

Credits: 3 | Grading Method: Regular, Pass-Fail, Audit | General Education: DSHU

Prerequisite: 3 credits in PHIL courses; or permission of ARHU-Meyerhoff Program & Center for Jewish Studies; or permission of ARHU-Philosophy department. Cross-listed with PHIL417. Credit only granted for: JWST452 or PHIL417.

Jewish philosophy from Maimonides in the 12th century to the expulsion of the Jews from Spain at the end of the 15th Century. Topics include the limitations of human knowledge, creation of the world, foreknowledge and free will, and the existence of God.

0101	Charles Manekin	Seats (Total: 20)
	Tu 4:30pm - 6:00pm Class time/details on ELMs	SKN 1112 ONLINE

JWST459 **Readings in Medieval Hebrew**

(Perm req)

Credits: 3-4 | Grading Method: Regular, Pass-Fail, Audit

Readings and analysis of Hebrew texts and literature from the Middle Ages. Language of instruction in English; all texts in Hebrew.

Contact department for information to register for this course.

JWST468 **Readings in the Hebrew Bible**

(Perm req)

Credits: 3-4 | Grading Method: Regular, Pass-Fail, Audit

Readings in the Hebrew text of the Bible. Emphasis in close reading, grammar analysis, and modern interpretations of the Bible. Language of instruction English; all texts in Hebrew.

Contact department for information to register for this course.

JWST469 **Readings in Rabbinic Hebrew**

(Perm req)

Credits: 3-4 Grading Method: Regular, Pass-Fail, Audit

Readings in classical rabbinic texts and related corpora. Emphasis on grammar and reading skills as well as critical analysis of the material. Language of instruction: English; all texts in original language.

Contact department for information to register for this course.

JWST478 **Readings in Modern Hebrew**

(Perm req)

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Variable topics in Modern Hebrew Literature.

Contact department for information to register for this course.

JWST499 **Independent Study in Jewish Studies; Independent Study in Jewish Studies**

(Perm req)

Credits: 1-3 Grading Method: Regular, Pass-Fail, Audit

Prerequisite: permission of department.

Contact department for information to register for this course.

JWST609 **Supervised Instruction-Practicum in Jewish Studies**

(Perm req)

Credits: 1 Grading Method: Sat-Fail

Supervised instruction or supervised practicum in Jewish Studies. Intended for graduate students whose course work includes field work or classroom teaching.

Contact department for information to register for this course.

JWST619 **Directed Readings in Jewish Studies**

(Perm req)

Credits: 3 Grading Method: Regular, Sat-Fail

Independent Study in Jewish Studies. Readings and papers.

Contact department for information to register for this course.

JWST648 **Readings in Jewish History**

(Perm req)

Credits: 3 Grading Method: Regular, Sat-Fail

Focus on the central issues in Jewish history as well as the key historiographical debates on those issues.

Prerequisite: permission of department. Repeatable to 9 credits if content differs. Focus on the central issues in Jewish history as well as the key historiographical debates on those issues.

Contact department for information to register for this course.

JWST658 **Readings in Jewish Thought and Culture**

(Perm req)

Credits: 3 Grading Method: Regular, Sat-Fail

Examines key issues in the development of Jewish thought and culture.

Prerequisite: permission of department. Repeatable to 9 credits if content differs. Examines key issues in the development of Jewish thought and culture.

Contact department for information to register for this course.

JWST678 **Readings in Jewish Literature**

(Perm req)

Credits: 3 Grading Method: Regular, Sat-Fail

Examines selected themes or literatures in the development of Jewish literary traditions.

Prerequisite: permission of department. Repeatable to 9 credits if content differs. Examines selected themes on literatures in the development of Jewish literary traditions.

Contact department for information to register for this course.

JWST699 **Independent Graduate Readings in Jewish Studies**

Credits: 1-3 Grading Method: Regular, Sat-Fail

Independent readings or guided research in a field of Jewish Studies with a member of the Jewish Studies graduate faculty.

0117	Instructor: TBA	Seats (Total: 1)
	Contact instructor or department for details.	

JWST799 **Masters Thesis Research**

(Perm req)

Credits: 1-6 Grading Method: Sat-Fail

Research and Writing the Masters Thesis in Jewish Studies.

Prerequisite: permission of department.

Contact department for information to register for this course.

KNES Kinesiology Spring 2020

KNES100O **Physical Education Activities: Coed; Basketball (Intermediate)**

Credits: 2 Grading Method: Regular, Pass-Fail

Attendance is required on the first day of class.Students must pay a $40.00 instructional materials fee.

0001	Timothy Henkel MW 10:00am - 12:00pm	Seats (Total: 40) ERC 0135	Lab
0002	Timothy Henkel, Ronald Mower MW 12:00pm - 2:00pm	Seats (Total: 40) ERC 0135	Lab
0003	Timothy Henkel TuTh 12:00pm - 2:00pm	Seats (Total: 40) ERC 0135	Lab

KNES131O **Physical Education Activities: Coed; Jogging (Intermediate)**

Credits: 2 Grading Method: Regular, Pass-Fail

Prerequisite: KNES 131V or 10k experience. For majors only. One weekend event expected.
Attendence is required the first day of class. Students must pay a $40.00 instructional materials fee.

0001	Timothy Henkel TuTh 2:00pm - 4:00pm	Seats (Total: 40) ARM 1122	Lab

KNES131V **Physical Education Activities: Coed; Jogging (Beginning)**

Credits: 2 Grading Method: Regular, Pass-Fail

Attendance is required on the first day of class. Students must pay a $40.00 instructional materials fee.

0002	Catherine Springer MW 2:00pm - 4:00pm	Seats (Total: 40) ARM 1122	Lab

KNES131Z **Physical Education Activities: Coed; Beginning Softball**

Credits: 1 Grading Method: Regular, Pass-Fail

Attendance is required of all students the first day in Ritchie Arena (1100), thereafter the class will meet on the ENGR Fields. Schedule adjustment is the first week of class only. Students must pay a $40.00 instructional materials fee.

0001	Steven Kahl	Seats (Total: 25)	
	Meets March 23, 2020 - May 12, 2020		
	TuTh 1:00pm - 3:00pm	Location: TBA	Lab

KNES132N **Physical Education Activities: Coed; Badminton (Beginning)**

Credits: 1

Grading Method: Regular, Pass-Fail

Attendance is required on the first day of class. Schedule adjustment is the first week of class only. Students must pay a $40.00 instructional materials fee.

0002	Wontak Kim	Seats (Total: 24)	
	Meets January 27, 2020 - March 13, 2020		
	MW 2:00pm - 4:00pm	SPH 2101	Lab

KNES134O **Physical Education Activities: Coed; Bowling (Intermediate)**

Credits: 1

Grading Method: Regular, Pass-Fail

Attendance is required the first day of class. Studentsmust pay a $40.00 instructional materials fee; plus bowling shoes arerequired. Schedule adjustment is the first week of class only.

0001	Timothy Henkel	Seats (Total: 30)	
	Meets January 27, 2020 - March 13, 2020		
	TuTh 8:00am - 10:00am	SSU B0106C	Lab
0002	Timothy Henkel	Seats (Total: 30)	
	Meets March 23, 2020 - May 12, 2020		
	TuTh 8:00am - 10:00am	SSU B0106C	Lab

KNES140A **Physical Education Activities: Coed; General Gymnastics**

Credits: 2

Grading Method: Regular, Pass-Fail, Audit

0001	Joshua Montfort	Seats (Total: 25)	
	Meets March 23, 2020 - May 12, 2020		
	TuTh 10:00am - 12:00pm	SPH 1120	

KNES140R **Physical Education Activities: Coed; Trampoline (Beginning)**

Credits: 1 Grading Method: Regular, Pass-Fail

Attendance is required on the first day of class. Scheduled adjustment is the first week of classes only. Students must pay a $40.00 instructional materials fee.

0001	Joshua Montfort	Seats (Total: 25)	
	Meets January 27, 2020 - March 13, 2020		
	MW 10:00am - 12:00pm	SPH 1120	Lab

KNES140V **Physical Education Activities: Coed; Tumbling and Balancing (Beginning)**

Credits: 1 Grading Method: Regular, Pass-Fail

Attendance is required on the first day of class. Schedule Adjustment is the first week of class only. Students must pay a $40.00 instructional materials fee.

0001	Orsam Ahmed	Seats (Total: 25)	
	Meets January 27, 2020 - March 13, 2020		
	TuTh 10:00am - 12:00pm	SPH 1120	Lab

KNES144Q **Physical Education Activities: Coed; Martial Arts, Karate (Beginning)**

Credits: 2 Grading Method: Regular, Pass-Fail

Attendance is required on the first day of class. Students must pay a $40.00 instructional materials fee.

0001	Kenneth Klotz	Seats (Total: 35)	
	MW 10:00am - 12:00pm	SPH 0107	Lab

KNES144R **Physical Education Activities: Coed; Martial Arts, Karate (Intermediate)**

Credits: 2 Grading Method: Regular, Pass-Fail

0001	Michael Dorothy TuTh 9:00am - 11:00am	Seats (Total: 32) SPH 0107	

KNES144T **Physical Education Activities: Coed; Self-Defense**

Credits: 2 Grading Method: Regular, Pass-Fail

Attendance is required on the first day of class. Students must pay a $40.00 instructional materials fee.

0001	Kenneth Klotz MW 8:00am - 10:00am	Seats (Total: 35) SPH 0107	Lab

KNES152O **Physical Education Activities: Coed; Soccer (Intermediate)**

Credits: 1 Grading Method: Regular, Pass-Fail

Restriction: Must be in a major within SPHL-Kinesiology department. Schedule adjustment is the first week of class only. Attendance is required on the first day of class. Students must pay a $40.00 instructional materials fee.

0001	Emma Shaw **Meets January 27, 2020 - March 9, 2020** MW 10:00am - 12:00pm	Seats (Total: 24) ARM 1122	Lab
0002	Emma Shaw **Meets March 23, 2020 - May 12, 2020** MW 10:00am - 12:00pm	Seats (Total: 24) ARM 1122	Lab

KNES154N **Physical Education Activities: Coed; Swimming (Beginning)**

Credits: 1 Grading Method: Regular, Pass-Fail

Attendance is required on the first day of class. Students must pay a $40.00 instructional materials fee.

0001	Stephanie Draminski TuTh 8:00am - 9:15am	Seats (Total: 22) ERC B0120	Lab

KNES154O **Physical Education Activities: Coed; Swimming (Intermediate)**

Credits: 1 Grading Method: Regular, Pass-Fail

Attendance is required on the first day of class. Students must pay a $40.00 instructional materials fee.

0001	Natalie Taylor MW 1:00pm - 2:15pm	Seats (Total: 22) ERC B0120	Lab

KNES154T **Physical Education Activities: Coed; Swimming, Fitness (Intermediate)**

Credits: 1 Grading Method: Regular, Pass-Fail

Attendance is required on the first day of class. Students must pay a $40.00 instructional materials fee.

0001	Brent Flynn TuTh 9:30am - 10:45am	Seats (Total: 22) ERC B0120	Lab

KNES154W **Physical Education Activities: Coed; Swimming/Lifeguard Training**

Credits: 2 Grading Method: Regular, Pass-Fail

Attendance is required on the first day of class. Students must pay a $40.00 instructional materials fee.

0001	Ronald Willoughby MW 9:00am - 11:00am	Seats (Total: 20) ERC B0120	Lab

KNES157N **Physical Education Activities: Coed; Weight Training (Beginning)**

Credits: 1 Grading Method: Regular, Pass-Fail

Attendance is required on the first day of class. Students must pay a $40.00 instructional materials fee.

0001	Katherine Kim MW 1:00pm - 2:15pm	Seats (Total: 32) SPH 0103	Lab
0002	James Heilman MW 11:00am - 12:15pm	Seats (Total: 32) SPH 0103	Lab
0003	Monica Nelson TuTh 2:00pm - 3:15pm	Seats (Total: 32) SPH 0103	Lab
0004	Katherine Kim MW 2:00pm - 3:15pm	Seats (Total: 32) SPH 0103	Lab

0005	Steven Kahl	Seats (Total: 32)	
	TuTh 11:00am - 12:15pm	SPH 0103	Lab

KNES157O **Physical Education Activities: Coed; Weight Training (Intermediate)**

Credits: 1

Grading Method: Regular, Pass-Fail

Attendance is required on the first day of class. Students must pay a $40.00 instructional materials fee.

0001	Andrea Romeo	Seats (Total: 32)	
	MW 12:00pm - 1:15pm	SPH 0103	Lab
0002	Monica Nelson	Seats (Total: 32)	
	TuTh 12:00pm - 1:15pm	SPH 0103	Lab

KNES161G **Physical Education Activities: Coed; Yoga for Fitness (Intermediate)**

Credits: 1

Grading Method: Regular, Pass-Fail

Restriction: Must be in a major within SPHL-Kinesiology department. Attendance is required beginning the first day of class. Students must pay a $40.00 instructional materials fee.

0001	Laura Rush	Seats (Total: 30)	
	TuTh 3:00pm - 4:15pm	SPH 0107	Lab

KNES161K **Physical Education Activities: Coed; Cardio Kickboxing (Beginning)**

Credits: 2

Grading Method: Regular, Pass-Fail

Attendance is required beginning the first day of class Students must pay a $40.00 instructional materials fee.

0001	Laura Rush	Seats (Total: 50)	
	TuTh 1:00pm - 3:00pm	ERC 0105	Lab
	Restriction: Must be in a major within SPHL-Kinesiology department. Attendance is required beginning the first day of class.		

KNES161O **Physical Education Activities: Coed; Conditioning (Intermediate)**

Credits: 1

Grading Method: Regular, Pass-Fail

Attendance is required on the first day of class. Schedule adjustment is the first week of class only. Students must pay a $40.00 instructional materials fee.

0001	Wontak Kim	Seats (Total: 32)	
	Meets March 23, 2020 - May 12, 2020		
	MW 2:00pm - 4:00pm	SPH 2101	Lab

KNES161T **Physical Education Activities: Coed; Yoga**

Credits: 1 Grading Method: Regular, Pass-Fail

Attendance on the first day of class is mandatory. Students must pay a $40.00 instructional materials fee.

0001	Kate Shin	Seats (Total: 30)	
	Meets January 27, 2020 - March 13, 2020		
	TuTh 11:00am - 1:00pm	SPH 0107	Lab
0002	Kate Shin	Seats (Total: 30)	
	Meets March 23, 2020 - May 12, 2020		
	TuTh 11:00am - 1:00pm	SPH 0107	Lab

KNES201 **Kinesiological Principles of Physical Activity**

Credits: 1 Grading Method: Regular, Pass-Fail, Audit

Corequisite: Any physical activity course, e.g., KNES 100-190; or permission of SPHL-Kinesiology department. Restriction: Must be in a major in SPHL-School of Public Health. Credit only granted for: KNES200 or KNES201.

An introduction to Kinesiology, the study of human movement, through the experience of learning a specific motor skill or being engaged in physical activity. Emphasis on the theories and knowledge underlying the learning and performance of all motor and sport skills.

0101	Andrew Ginsberg	Seats (Total: 25)	
	Meets January 27, 2020 - March 14, 2020		
	W 11:00am - 11:50am Class time/details on ELMs	SPH 0305 ONLINE	

0103	Jennifer Lee **Meets January 27, 2020 - March 14, 2020** M 2:00pm - 2:50pm Class time/details on ELMs	Seats (Total: 25) SPH 0303 ONLINE	
0104	Jennifer Lee **Meets March 23, 2020 - May 12, 2020** M 2:00pm - 2:50pm Class time/details on ELMs	Seats (Total: 25) SPH 0303 ONLINE	
0105	Andrew Ginsberg **Meets January 27, 2020 - March 14, 2020** W 2:00pm - 2:50pm Class time/details on ELMs	Seats (Total: 25) SPH 0307 ONLINE	
0107	Tori Thompson **Meets January 27, 2020 - March 18, 2020** M 11:00am - 11:50am Class time/details on ELMs	Seats (Total: 25) SPH 0302 ONLINE	

KNES214 **Science and Methods of Personal Fitness Instruction**

Credits: 3 | Grading Method: Regular, Pass-Fail | General Education: DSSP

Credit only granted for: KNES214 or KNES210 and KNES211, or KNES210 and KNES212, or KNES289N. Formerly: KNES210/KNES211, KNES210/KNES212, and KNES289N.

Basic concepts of human anatomy, exercise physiology, applied kinesiology, nutrition and the physiology of exercise training. Includes the CORE knowledge required for the American Council on Exercise (ACE) Personal Trainer certification.

0101	Rosemary Lindle Class time/details on ELMs M 8:00am - 9:50am	Seats (Total: 25) ONLINE SPH 0305	 Lab
0102	Rosemary Lindle Class time/details on ELMs W 8:00am - 9:50am	Seats (Total: 25) ONLINE SPH 0305	 Lab

KNES222 **Gambling in the New Millennium: Poker, The Preakness, Point-spreads, Powerball and Public Policy**

Credits: 3 | Grading Method: Regular, Pass-Fail, Audit | General Education: DSHS, SCIS

Recommended: ENGL101 and COMM107.

Is gambling in the public interest? Students will critically examine the various implications of "what it means to gamble" through investigations of various gambling forms, different sectors of the gambling industry and the related economics, along with consumer behavior, sport, public policy and public health in this context.

0101	Stephen McDaniel MW 2:00pm - 2:50pm F 9:00am - 9:50am	Seats (Total: 20) MCB 1207 SPH 0303	Discussion
0102	Stephen McDaniel MW 2:00pm - 2:50pm F 10:00am - 10:50am	Seats (Total: 20) MCB 1207 SPH 0303	Discussion
0103	Stephen McDaniel MW 2:00pm - 2:50pm F 11:00am - 11:50am	Seats (Total: 20) MCB 1207 SPH 0303	Discussion
0104	Stephen McDaniel MW 2:00pm - 2:50pm F 12:00pm - 12:50pm	Seats (Total: 20) MCB 1207 SPH 0303	Discussion

KNES235 **Swimming Pool Management**

Credits: 2 | Grading Method: Regular, Pass-Fail, Audit

Credit only granted for: KNES235 or KNES335. Formerly: KNES335.

Analysis of the position of the swimming pool manager. The systematic treatment of swimming pool water; swimming pool first aid; and laws pertaining to swimming pool operation. Qualifies the student for a pool operator's license in most Maryland counties.

0101	John Felts TuTh 11:00am - 12:15pm	Seats (Total: 35) ERC B0136	

KNES246 **Transformational Leader in Sport: The Art and Science of Coaching**

Credits: 3 | Grading Method: Regular, Pass-Fail

Highlights the expectations and ethical problems facing developmental sport programs and youth athletic coaches today. Explores the continuum of coaching from Buttermaker (Bad News Bears) to Belichick (New England Patriots). We firstexamine the issues of sports, physical inactivity and obesity from a physiological, psychological, social, political, and economic perspective. Next, we will focus on how transformational leadership behaviors, knowledge, and communication influence changes in intrapersonal, interpersonal, and environmental aspects. Finally, we will employ a practical, manageable method for coaches to develop their athletes and programs.

0101	Jay Goldstein	Seats (Total: 30)
	MWF 8:00am - 8:50am	SPH 1302

KNES282 **Basic Care and Prevention of Athletic Injuries**

Credits: 3 Grading Method: Regular, Pass-Fail

Restriction: Must be in a major within the SPHL-Kinesiology department. Credit only granted for: KNES282 or KNES381.

Theoretical and practical foundations of the prevention, treatment and rehabilitation of athletically related injuries. Topics include: physical conditioning, preventive taping, recognition of injuries, first aid and CPR.

0101	Joanne Klossner	Seats (Total: 36)
	TuTh 2:00pm - 3:15pm	SPH 0308

KNES286 **Empowering Healthy Physical Activity**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit General Education: DSSP

Learn evidence-based techniques that health professionals use to promote physical activity programs that meet the needs of diverse populations. Develop and implement an intervention plan targeting a specific population.

Implementation of the interventions will take place during the Maryland Day festivities.

0101	Andrea Romeo	Seats (Total: 30)
	TuTh 9:30am - 10:45am	SPH 0307

KNES287 **Sport and American Society**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit CORE: SB, D General Education: DSHS, DVUP

Sport will be related to such social problems as delinquency, segregation, collective behavior, and leisure; to social processes such as socialization, stratification, mobility, and social control; and to those familiar social institutions the family, the school, the church, the military, the economy, the polity, and the mass media.

Restricted to majors or non-majors with less than or equal to 45 credits.

0101	Eric Stone MW 11:00am - 11:50am M 8:00am - 8:50am	Seats (Total: 22) JMZ 0220 SPH 0303	Discussion
0102	Eric Stone MW 11:00am - 11:50am M 9:00am - 9:50am	Seats (Total: 22) JMZ 0220 SPH 0303	Discussion
0103	Eric Stone MW 11:00am - 11:50am M 10:00am - 10:50am	Seats (Total: 22) JMZ 0220 SPH 0303	Discussion
0104	Eric Stone MW 11:00am - 11:50am M 1:00pm - 1:50pm	Seats (Total: 22) JMZ 0220 SPH 0305	Discussion
0105	Eric Stone MW 11:00am - 11:50am M 12:00pm - 12:50pm	Seats (Total: 22) JMZ 0220 SPH 0305	Discussion
0106	Eric Stone MW 11:00am - 11:50am M 3:00pm - 3:50pm	Seats (Total: 22) JMZ 0220 SPH 0305	Discussion

KNES289 **Topical Investigations**

(Perm req)

Credits: 1-3 Grading Method: Regular, Pass-Fail

Independent study by an individual student or a group of students in special areas of knowledge not covered by regularly scheduled courses.

Prerequisite: permission of department.

Contact department for information to register for this course.

KNES289R **Hoop Dreams: Black Masculinity and Sport**

Credits: 3 | Grading Method: Regular, Pass-Fail, Audit | General Education: DSHS, SCIS

0101	Ronald Mower TuTh 5:00pm - 6:15pm	Seats (Total: 50) SPH 1301	

KNES289W **Topical Investigations; The Cybernetic Human**

Credits: 3 | Grading Method: Regular, Pass-Fail, Audit | General Education: DSNS, SCIS

Independent study by an individual student or a group of students in special areas of knowledge not covered by regularly scheduled courses.

Can the profound and rapid technological advances experienced in the 21st century change what it means to be human or the nature of humanity? Emergent technologies, new materials, increased computer power, engineering innovations, and groundbreaking work in the sciences of cognition and action provide myriad opportunities for repairing and enhancing the human body and brain. Examines the ethical, social, and technological implications of an increasing synergism of technology and and the body in sports and the arts, at work or home, rehabilitating the the body and the brain, and society at large.

0101	Tim Kiemel MF 2:00pm - 2:50pm W 12:00pm - 12:50pm	Seats (Total: 20) CCC 1100 SPH 0301	Discussion
0102	Tim Kiemel MF 2:00pm - 2:50pm W 10:00am - 10:50am	Seats (Total: 20) CCC 1100 SPH 0301	Discussion
0103	Tim Kiemel MF 2:00pm - 2:50pm W 1:00pm - 1:50pm	Seats (Total: 20) CCC 1100 SPH 0301	Discussion
0104	Tim Kiemel MF 2:00pm - 2:50pm W 2:00pm - 2:50pm	Seats (Total: 20) CCC 1100 SPH 0301	Discussion

KNES293 **History of Sport in America**

Credits: 3 | Grading Method: Regular, Pass-Fail, Audit | CORE: SH | General Education: DSHS

The growth and development of sport in America. The transformation of sport within the perspective of American history, including class sport, professionalization, amateurism, and international involvement.

Restricted to Majors or non-majors with less than or equal to 45 credits.

0101	Shannon Jette MW 1:00pm - 1:50pm F 12:00pm - 12:50pm	Seats (Total: 22) SPH 1312 SPH 0305	Discussion
0102	Shannon Jette MW 1:00pm - 1:50pm F 1:00pm - 1:50pm	Seats (Total: 22) SPH 1312 SPH 0305	Discussion
0103	Shannon Jette MW 1:00pm - 1:50pm F 2:00pm - 2:50pm	Seats (Total: 22) SPH 1312 SPH 0305	Discussion
0104	Shannon Jette MW 1:00pm - 1:50pm W 10:00am - 10:50am	Seats (Total: 22) SPH 1312 SPH 0303	Discussion
0105	Shannon Jette MW 1:00pm - 1:50pm W 11:00am - 11:50am	Seats (Total: 22) SPH 1312 SPH 0303	Discussion
0106	Shannon Jette MW 1:00pm - 1:50pm W 2:00pm - 2:50pm *Restricted to KNES majors (08351).*	Seats (Total: 22) SPH 1312 SPH 0303	Discussion

KNES300 **Biomechanics of Human Motion**

Credits: 4 Grading Method: Regular, Pass-Fail

Prerequisite: Minimum grade of C- in BSCI201. And 1 course with a minimum grade of C- from (MATH112, MATH113, MATH115); or (must have completed one General Education: Fundamental Studies-Math course with a minimum grade of C-; and must have math eligibility of MATH140 or higher). Recommended: PHYS121. Restriction: Must be in a major within SPHL-Kinesiology department.

The study of human movement and the physical and physiological principles upon which it depends. Body mechanics, posture, motor efficiency, sports, the performance of a typical individual and the influence of growth and development upon motor performance.

0101	Hossein Ehsani MW 3:00pm - 4:15pm Tu 8:00am - 9:50am	Seats (Total: 18) JMZ 0220 SPH 0223	 Lab
0102	Hossein Ehsani MW 3:00pm - 4:15pm Tu 10:00am - 11:50am	Seats (Total: 18) JMZ 0220 SPH 0223	 Lab
0103	Hossein Ehsani MW 3:00pm - 4:15pm Tu 12:00pm - 1:50pm	Seats (Total: 18) JMZ 0220 SPH 0223	 Lab
0104	Hossein Ehsani MW 3:00pm - 4:15pm Tu 2:00pm - 3:50pm	Seats (Total: 18) JMZ 0220 SPH 0223	 Lab
0105	Hossein Ehsani MW 3:00pm - 4:15pm Th 8:00am - 9:50am	Seats (Total: 18) JMZ 0220 SPH 0223	 Lab
0106	Hossein Ehsani MW 3:00pm - 4:15pm Th 10:00am - 11:50am	Seats (Total: 18) JMZ 0220 SPH 0223	 Lab
0107	Hossein Ehsani MW 3:00pm - 4:15pm Th 12:00pm - 1:50pm	Seats (Total: 18) JMZ 0220 SPH 0223	 Lab
0108	Hossein Ehsani MW 3:00pm - 4:15pm Th 2:00pm - 3:50pm	Seats (Total: 18) JMZ 0220 SPH 0223	 Lab

KNES300H **Biomechanics of Human Motion**

(Perm req)

Credits: 4

Grading Method: Regular, Pass-Fail, Audit

Prerequisite: Minimum grade of C- in BSCI201. And 1 course with a minimum grade of C- from (MATH112, MATH113, MATH115); or (must have completed one General Education: Fundamental Studies-Math course with a minimum grade of C-; and must have math eligibility of MATH140 or higher). Recommended: PHYS121. Restriction: Must be in a major within SPHL-Kinesiology department.

The study of human movement and the physical and physiological principles upon which it depends. Body mechanics, posture, motor efficiency, sports, the performance of a typical individual and the influence of growth and development upon motor performance.

0101	Hossein Ehsani MW 3:00pm - 4:15pm Contact instructor or department for details.	Seats (Total: 3) JMZ 0220	

KNES320 **Physiological Basis of Physical Activity and Human Health**

Credits: 4 Grading Method: Regular, Pass-Fail, Audit

Prerequisite: Minimum grade of C- in BSCI201 and BSCI202. Restriction: Must be in Public Health Science program. Credit only granted for: KNES360 or KNES320.

A study of the responses and chronic adaptations to physical activity and exercise, with particular emphasis on the interaction between human health and physical activity. The laboratory component of course will focus on the assessment of physical activity and measurement of physiological adaptations to exercise. Students are expected to gain an understanding and appreciation for the benefits of physical activity and exercise in the context of public health.

Students must pay a $50.00 lab fee.

0101	Jeffrey Beans Tu 4:00pm - 5:15pm Class time/details on ELMs M 12:00pm - 1:50pm	Seats (Total: 20) ESJ 0202 ONLINE SPH 0125	Lab
0102	Jeffrey Beans Tu 4:00pm - 5:15pm Class time/details on ELMs M 2:00pm - 3:50pm	Seats (Total: 20) ESJ 0202 ONLINE SPH 0125	Lab
0103	Jeffrey Beans Tu 4:00pm - 5:15pm Class time/details on ELMs W 8:00am - 9:50am	Seats (Total: 20) ESJ 0202 ONLINE SPH 0125	Lab
0104	Jeffrey Beans Tu 4:00pm - 5:15pm Class time/details on ELMs W 10:00am - 11:50am	Seats (Total: 20) ESJ 0202 ONLINE SPH 0125	Lab

0105	Jeffrey Beans Tu 4:00pm - 5:15pm Class time/details on ELMs W 12:00pm - 1:50pm	Seats (Total: 20) ESJ 0202 ONLINE SPH 0125	 Lab
0106	Jeffrey Beans Tu 4:00pm - 5:15pm Class time/details on ELMs W 2:00pm - 3:50pm	Seats (Total: 20) ESJ 0202 ONLINE SPH 0125	 Lab
0107	Jeffrey Beans Tu 4:00pm - 5:15pm Class time/details on ELMs F 10:00am - 11:50am	Seats (Total: 20) ESJ 0202 ONLINE SPH 0125	 Lab
0108	Jeffrey Beans Tu 4:00pm - 5:15pm Class time/details on ELMs F 12:00pm - 1:50pm	Seats (Total: 20) ESJ 0202 ONLINE SPH 0125	 Lab

KNES332 **Exercise Testing & Prescription for Fitness Professionals**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Prerequisite: Minimum grade of C- in KNES360. Restriction: Must be in a major within the SPHL-Kinesiology department; and must have earned a minimum of 75 credits. Credit only granted for: KNES332 or KNES389G. Formerly: KNES389G.

Practical applications of exercise physiology and psychology to target fitness instruction for the general adult population Includes discussion of certification standards and professional development as well as evaluation of program safety and current trends.

0101	Jo Zimmerman WF 8:00am - 9:50am	Seats (Total: 25) SPH 0308

KNES332H **Exercise Testing & Prescription for Fitness Professionals**

(Perm req)

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Prerequisite: Minimum grade of C- in KNES360. Restriction: Must be in a major within the SPHL-Kinesiology department; and must have earned a minimum of 75 credits. Credit only granted for: KNES332 or KNES389G. Formerly: KNES389G.

Practical applications of exercise physiology and psychology to target fitness instruction for the general adult population Includes discussion of certification standards and professional development as well as evaluation of program safety and current trends.

0101	Jo Zimmerman	Seats (Total: 2)
	WF 8:00am - 9:50am	SPH 0308

KNES333 **Motor Development and Fitness for Individuals with Disabilities**

Credits: 3 Grading Method: Regular, Pass-Fail

Prerequisite: Minimum grade of C- in KNES370. Restriction: Must be in a major within the SPHL-Kinesiology department; and must have earned a minimum of 60 credits.

Implications of Federal and State regulations for planning and implementing motor development and physical fitness programs for individuals with disabilities. Evaluation strategies for assessing motor performance and fitness levels in educational programs for these individuals.

Students are required to choose a placement for a service-learning exper ience involving direct work with children who have disabilities. Studen ts may choose from a list of local schools (listed in the syllabus) that have special education programs; or they may complete this requirement at the Children's Developmental Clinic held on campus in the SPH (School of Public Health) building every Saturday 8:30a-12:30p.

0101	Dennis Vacante	Seats (Total: 32)
	Th 7:30pm - 10:00pm	SPH 0308

KNES334 **Adapted Physical Activity: Empowering People with Disabilities to Lead a Healthy and Active Lifestyle.**

Credits: 3 Grading Method: Regular, Pass-Fail General Education: DSSP, DVUP

Credit only granted for: KNES498L or KNES334. Formerly: KNES498L.

Study of the field of adapted physical activity and its impact on the health and wellness of individuals with disabilities. Students will design an adapted physical activity program proposal and develop the skills needed to empower people with disabilities to participate in physical activity and sports programs and to lead active lifestyles.

0101	Ana Palla-Kane	Seats (Total: 30)
	Class time/details on ELMs	ONLINE

KNES350 **The Psychology of Sports & Exercise**

Credits: 3 | Grading Method: Regular, Pass-Fail, Audit | General Education: DSHS

An exploration of personality factors, including but not limited to motivation, aggression and emotion, as they affect sports participation and motor skill performance.

0101	Elizabeth Brown TuTh 2:00pm - 3:15pm	Seats (Total: 70) SPH 1303
0201	J Carson Smith TuTh 8:00am - 9:15am	Seats (Total: 70) SPH 1303

KNES350H **The Psychology of Sports & Exercise**

(Perm req)

Credits: 3 | Grading Method: Regular, Pass-Fail, Audit | General Education: DSHS

An exploration of personality factors, including but not limited to motivation, aggression and emotion, as they affect sports participation and motor skill performance.

Prerequisite: permission of department.

0101	Elizabeth Brown TuTh 2:00pm - 3:15pm	Seats (Total: 2) SPH 1303
0201	J Carson Smith TuTh 8:00am - 9:15am	Seats (Total: 3) SPH 1303

KNES355 **Sport Management**

Credits: 3 | Grading Method: Regular, Pass-Fail, Audit

Prerequisite: Minimum grade of C- in KNES287. Restriction: Must be in a major within the SPHL-Kinesiology department; and must have earned a minimum of 75 credits. Credit only granted for: KNES355 or KNES498M.

Application of concepts and issues related to management principles and business concerns across various sections of the sport industry. Principles pertaining to the management of sport organizations.

0101	Stephen McDaniel TuTh 12:30pm - 1:45pm	Seats (Total: 32) SPH 0307

KNES355H **Sport Management**

(Perm req)

Credits: 3

Grading Method: Regular, Pass-Fail, Audit

Prerequisite: Minimum grade of C- in KNES287. Restriction: Must be in a major within the SPHL-Kinesiology department; and must have earned a minimum of 75 credits. Credit only granted for: KNES355 or KNES498M.

Application of concepts and issues related to management principles and business concerns across various sections of the sport industry. Principles pertaining to the management of sport organizations.

0101	Stephen McDaniel TuTh 12:30pm - 1:45pm	Seats (Total: 3) SPH 0307	

KNES360 **Physiology of Exercise**

Credits: 4

Grading Method: Regular, Pass-Fail, Audit

Prerequisite: Minimum grade of C- in BSCI202 and BSCI201; or permission of SPHL-Kinesiology department. Restriction: Must be in one of the following programs (Kinesiology; Public Health Science).

A study of the physiology of exercise, including concepts of work, muscular contraction, energy transformation, metabolism, oxygen debt, and nutrition and athletic performance. Emphasis on cardiovascular and respiratory function in relation to physical activity and training.

Students must pay a $50.00 lab fee.

0101	Steven Prior MWF 12:00pm - 12:50pm Tu 8:00am - 9:50am	Seats (Total: 18) SPH 1312 SPH 0125	 Lab
0102	Steven Prior MWF 12:00pm - 12:50pm Tu 10:00am - 11:50am	Seats (Total: 18) SPH 1312 SPH 0125	 Lab
0103	Steven Prior MWF 12:00pm - 12:50pm Tu 12:00pm - 1:50pm	Seats (Total: 18) SPH 1312 SPH 0125	 Lab
0104	Steven Prior MWF 12:00pm - 12:50pm Tu 2:00pm - 3:50pm	Seats (Total: 18) SPH 1312 SPH 0125	 Lab

0105	Steven Prior MWF 12:00pm - 12:50pm Th 8:00am - 9:50am	Seats (Total: 18) SPH 1312 SPH 0125	Lab
0106	Steven Prior MWF 12:00pm - 12:50pm Th 10:00am - 11:50am	Seats (Total: 18) SPH 1312 SPH 0125	Lab
0107	Steven Prior MWF 12:00pm - 12:50pm Th 12:00pm - 1:50pm	Seats (Total: 18) SPH 1312 SPH 0125	Lab
0108	Steven Prior MWF 12:00pm - 12:50pm Th 2:00pm - 3:50pm	Seats (Total: 18) SPH 1312 SPH 0125	Lab

KNES360H **Physiology of Exercise**

(Perm req)

Credits: 4

Grading Method: Regular, Pass-Fail, Audit

Prerequisite: Minimum grade of C- in BSCI202 and BSCI201; or permission of SPHL-Kinesiology department. Restriction: Must be in one of the following programs (Kinesiology; Public Health Science).

A study of the physiology of exercise, including concepts of work, muscular contraction, energy transformation, metabolism, oxygen debt, and nutrition and athletic performance. Emphasis on cardiovascular and respiratory function in relation to physical activity and training.

Students must pay a $50.00 lab fee.

0101	Steven Prior MWF 12:00pm - 12:50pm Contact instructor or department for details. *Restricted to students in the Kinesiology major (code: 08351).*	Seats (Total: 3) SPH 1312

KNES370 **Motor Development**

Credits: 3

Grading Method: Regular, Pass-Fail, Audit

Restriction: Must be in a major within SPHL-Kinesiology department.

Motor development across the life span. The developmental sequences of motor skills from birth to old age; neuromaturation of neuromuscular system; analysis of the underlying mechanisms of motor skill development; and correlates of motor development.

0101	Tim Kiemel MW 3:00pm - 3:50pm M 8:00am - 8:50am	Seats (Total: 18) SPH 1312 SPH 0223	Discussion
0102	Tim Kiemel MW 3:00pm - 3:50pm M 9:00am - 9:50am	Seats (Total: 18) SPH 1312 SPH 0223	Discussion
0103	Tim Kiemel MW 3:00pm - 3:50pm M 10:00am - 10:50am	Seats (Total: 18) SPH 1312 SPH 0223	Discussion
0104	Tim Kiemel MW 3:00pm - 3:50pm M 11:00am - 11:50am	Seats (Total: 18) SPH 1312 SPH 0223	Discussion
0105	Tim Kiemel MW 3:00pm - 3:50pm M 12:00pm - 12:50pm	Seats (Total: 18) SPH 1312 SPH 0223	Discussion
0106	Tim Kiemel MW 3:00pm - 3:50pm M 1:00pm - 1:50pm	Seats (Total: 18) SPH 1312 SPH 0223	Discussion
0107	Tim Kiemel MW 3:00pm - 3:50pm W 8:00am - 8:50am	Seats (Total: 18) SPH 1312 SPH 0223	Discussion
0108	Tim Kiemel MW 3:00pm - 3:50pm W 9:00am - 9:50am	Seats (Total: 18) SPH 1312 SPH 0223	Discussion

KNES370H **Motor Development**

(Perm req)

Credits: 3

Grading Method: Regular, Pass-Fail

Restriction: Must be in a major within SPHL-Kinesiology department.

Motor development across the life span. The developmental sequences of motor skills from birth to old age; neuromaturation of neuromuscular system; analysis of the underlying mechanisms of motor skill development; and correlates of motor development.

Prerequisite: permission of department.

0101	Tim Kiemel MW 3:00pm - 3:50pm Contact instructor or department for details.	Seats (Total: 2) SPH 1312	

KNES385 **Motor Control and Learning**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Restriction: Must be in a major within SPHL-Kinesiology department.

Physiological and cognitive bases for motor control and their applications to the acquisition of movement skills and understanding of movement disorders. Topics include: neurophysiology, motor control theory, sensory/perceptual processes, perception-action coupling, information processing, memory, attention, individual differences, motivation, practice organization and role of feedback.

0101	Rodolphe Gentili MW 2:00pm - 2:50pm W 10:00am - 10:50am	Seats (Total: 18) SPH 1312 SPH 0223	Discussion
0102	Rodolphe Gentili MW 2:00pm - 2:50pm W 11:00am - 11:50am	Seats (Total: 18) SPH 1312 SPH 0223	Discussion
0103	Rodolphe Gentili MW 2:00pm - 2:50pm W 12:00pm - 12:50pm	Seats (Total: 18) SPH 1312 SPH 0223	Discussion
0104	Rodolphe Gentili MW 2:00pm - 2:50pm F 8:00am - 8:50am	Seats (Total: 18) SPH 1312 SPH 0223	Discussion
0105	Rodolphe Gentili MW 2:00pm - 2:50pm F 9:00am - 9:50am	Seats (Total: 18) SPH 1312 SPH 0223	Discussion
0106	Rodolphe Gentili MW 2:00pm - 2:50pm F 10:00am - 10:50am	Seats (Total: 18) SPH 1312 SPH 0223	Discussion

0107	Rodolphe Gentili MW 2:00pm - 2:50pm F 11:00am - 11:50am	Seats (Total: 18) SPH 1312 SPH 0223	 Discussion
0108	Rodolphe Gentili MW 2:00pm - 2:50pm W 1:00pm - 1:50pm	Seats (Total: 18) SPH 1312 SPH 0223	 Discussion

KNES385H **Motor Control and Learning**

(Perm req)

Credits: 3

Grading Method: Regular, Pass-Fail, Audit

Restriction: Must be in a major within SPHL-Kinesiology department.

Physiological and cognitive bases for motor control and their applications to the acquisition of movement skills and understanding of movement disorders. Topics include: neurophysiology, motor control theory, sensory/perceptual processes, perception-action coupling, information processing, memory, attention, individual differences, motivation, practice organization and role of feedback.

Prerequisite: permission of department.

0101	Rodolphe Gentili MW 2:00pm - 2:50pm Contact instructor or department for details.	Seats (Total: 4) SPH 1312

KNES389 **Topical Investigations**

(Perm req)

Credits: 1-3

Grading Method: Regular, Pass-Fail

Independent study by an individual student or a group of students in special areas of knowledge not covered by regularly scheduled courses.

Prerequisite: permission of instructor and department. This class does NOT fulfill a KNES Options Requirement.

Contact department for information to register for this course.

KNES389D **Topical Investigations; Sport for Development**

Credits: 3

Grading Method: Regular, Pass-Fail, Audit

Independent study by an individual student or a group of students in special areas of knowledge not covered by regularly scheduled courses.

Prerequisite: KNES287 with a C- or better.

0101	Ronald Mower, Timothy Henkel W 1:00pm - 1:50pm Class time/details on ELMs	Seats (Total: 50) SPH 1302 ONLINE

KNES389E **Topical Investigations; Childrens Development Clinic**

Credits: 1 Grading Method: Regular, Pass-Fail, Audit

Independent study by an individual student or a group of students in special areas of knowledge not covered by regularly scheduled courses.

Students will be required to complete fingerprinting and background checks (at no cost to the students). A service-learning experience at the Children's Developmental Clinic in the SPH (School of Public Health) building each Saturday morning (8:30-12:30). It is designed to give students a one-on-one, hands-on experience in working with a child who has special educational needs in the areas of motor development, language, reading, and social skills. There are two training sessions and nine sessions with the children.

0101	David Maggiacomo Sa 8:30am - 12:30pm	Seats (Total: 30) SPH 2101

KNES389K **Topical Investigations; Kinesiology Internship**

(Perm req)

Credits: 3 Grading Method: Regular, Pass-Fail

Independent study by an individual student or a group of students in special areas of knowledge not covered by regularly scheduled courses.

Prerequisite: permission of instructor and department.

Contact department for information to register for this course.

KNES400 **The Foundations of Public Health in Kinesiology**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Prerequisite: Minimum grade of C- in KNES287. Restriction: Senior standing or higher; and must be in a major within the SPHL-Kinesiology department. Credit only granted for: KNES400 or KNES498A. Formerly: KNES498A.

An investigation of the role of physical activity and inactivity in relation to health and well-being through a public health perspective. Past and current perspectives on health promotion, health education, and social policies and approaches will be examined for various populations.

0101	Anna Posbergh MW 11:00am - 11:50am W 12:00pm - 12:50pm	Seats (Total: 18) SPH 1312 SPH 0305	 Discussion
0102	Anna Posbergh MW 11:00am - 11:50am W 1:00pm - 1:50pm	Seats (Total: 18) SPH 1312 SPH 0305	 Discussion
0103	Anna Posbergh MW 11:00am - 11:50am W 2:00pm - 2:50pm	Seats (Total: 18) SPH 1312 SPH 0305	 Discussion
0104	Anna Posbergh MW 11:00am - 11:50am W 3:00pm - 3:50pm	Seats (Total: 18) SPH 1312 SPH 0305	 Discussion

KNES400H **The Foundations of Public Health in Kinesiology**

(Perm req)

Credits: 3

Grading Method: Regular, Pass-Fail, Audit

Prerequisite: Minimum grade of C- in KNES287. Restriction: Senior standing or higher; and must be in a major within the SPHL-Kinesiology department. Credit only granted for: KNES400 or KNES498A. Formerly: KNES498A.

An investigation of the role of physical activity and inactivity in relation to health and well-being through a public health perspective. Past and current perspectives on health promotion, health education, and social policies and approaches will be examined for various populations.

0101	Anna Posbergh MW 11:00am - 11:50am Contact instructor or department for details.	Seats (Total: 4) SPH 1312	

KNES405 **Principles & Techniques of Manual Muscle Testing**

Credits: 3

Grading Method: Regular, Pass-Fail

Prerequisite: Minimum grade of C- in BSCI201 and BSCI202; and 1 course with a minimum grade of C- from Kinesiology core courses at the 300-level or higher. Additional information: This course emphasizes hands-on application of skills. Course participation is critical.

It is critical for sports medicine and sport performance specialists to understand the location and inter-relationships of the structures of the body that impact human movement. Thus, the primary purpose of this course is to facilitate an in-depth, understanding of the muscles of the body. Specifically, students will learn the origins, insertions, primary and secondary functions, as well as nervous innervations of the major muscle groups of the body. In addition, students will develop palpation skills and learn to grade the function of each muscle through manual muscle testing techniques. These skills form the foundation for assessing functional movement as well as performing safe and effective manual therapy techniques. Thus, while the focus of the class will be to develop sound, introductory palpation and manual muscle testing skills, basic principles of functional movement and manual therapy will also be addressed through hands-on application as well as case study.

0101	Joanne Klossner, Larry Plotkin	Seats (Total: 20)
	TuTh 9:30am - 10:45am	SPH 0301

KNES442 **Psychology of Exercise and Health**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Prerequisite: Minimum grade of C- in KNES350. Restriction: Must be in a major within the SPHL-Kinesiology department; and must have earned a minimum of 75 credits. Credit only granted for: KNES442 or KNES498O. Formerly: KNES498O.

Examines the antecedents and consequences of exerciese behavior. Explores motivation, attitude, control, socialization. Proposes intervention strategies at the individual, organizational and societal levels.

0101	Seppo Iso-Ahola	Seats (Total: 30)
	M 4:00pm - 6:30pm	SPH 1302

KNES442H **Psychology of Exercise and Health**

(Perm req)

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Prerequisite: Minimum grade of C- in KNES350. Restriction: Must be in a major within the SPHL-Kinesiology department; and must have earned a minimum of 75 credits. Credit only granted for: KNES442 or KNES498O. Formerly: KNES498O.

Examines the antecedents and consequences of exerciese behavior. Explores motivation, attitude, control, socialization. Proposes intervention strategies at the individual, organizational and societal levels.

0101	Seppo Iso-Ahola	Seats (Total: 2)
	M 4:00pm - 6:30pm	SPH 1302

KNES451 **Children and Sport: A Psychosocial Perspective**

Credits: 3 Grading Method: Regular, Pass-Fail

Prerequisite: Minimum grade of C- in KNES350. Restriction: Must be in a major within the SPHL-Kinesiology department; and must have earned a minimum of 75 credits.

Examination of youth sports from a psychosocial perspective, including the impact of highly structured sports on young athletes and the complex social network of coaches, parents and peers.

0101	Elizabeth Brown Tu 4:00pm - 6:30pm	Seats (Total: 50) SPH 1302

KNES451H **Children and Sport: A Psychosocial Perspective**

(Perm req)

Credits: 3 Grading Method: Regular, Pass-Fail

Prerequisite: Minimum grade of C- in KNES350. Restriction: Must be in a major within the SPHL-Kinesiology department; and must have earned a minimum of 75 credits.

Examination of youth sports from a psychosocial perspective, including the impact of highly structured sports on young athletes and the complex social network of coaches, parents and peers.

Prerequisite: permission of department.

0101	Elizabeth Brown Tu 4:00pm - 6:30pm	Seats (Total: 3) SPH 1302

KNES457 **Managing Youth Programs: Educational, Fitness and Sport**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Prerequisite: Minimum grade of C- in KNES350 and KNES370. Restriction: Must be in a major within the SPHL-Kinesiology department; and must have earned a minimum of 75 credits. Credit only granted for: KNES457 or KNES498Y.

An examination of the basic functions involved in managing physical education, fitness, and youth sports programs. Focus on leadership skills, organizational management, and techniques for applying learned skills in a variety of organizational settings that serve the nation's youth.

0101	Jay Goldstein TuTh 9:30am - 10:45am	Seats (Total: 35) SPH 0308

KNES460 **Physiology of Aging and the Impact of Physical Activity**

Credits: 3

Grading Method: Regular, Pass-Fail, Audit

Prerequisite: 1 course with a minimum grade of C- from (KNES320, KNES360). Restriction: Must be in one of the following programs (Kinesiology; Public Health Science); and must have earned a minimum of 75 credits. Credit only granted for: KNES498F or KNES460. Formerly: KNES498F.

Biology of the aging process in healthy individuals and those with chronic disease, the effects of acute exercise and exercise training on the physiological decline that occurs in humans, and the role that regular physical activity plays on enhancing the quality of life and activities of daily living in individuals.

0101	Marc Rogers	Seats (Total: 30)
	TuTh 11:00am - 12:15pm	SPH 0307

KNES460H **Physiology of Aging and the Impact of Physical Activity**

(Perm req)

Credits: 3

Grading Method: Regular, Pass-Fail, Audit

Prerequisite: 1 course with a minimum grade of C- from (KNES320, KNES360). Restriction: Must be in one of the following programs (Kinesiology; Public Health Science); and must have earned a minimum of 75 credits. Credit only granted for: KNES498F or KNES460. Formerly: KNES498F.

Biology of the aging process in healthy individuals and those with chronic disease, the effects of acute exercise and exercise training on the physiological decline that occurs in humans, and the role that regular physical activity plays on enhancing the quality of life and activities of daily living in individuals.

0101	Marc Rogers	Seats (Total: 3)
	TuTh 11:00am - 12:15pm	SPH 0307

KNES464 **Exercise Metabolism: Role in Health and Disease**

Credits: 3

Grading Method: Regular, Pass-Fail, Audit

Prerequisite: Minimum grade of C- in KNES360. Restriction: Must have earned a minimum of 75 credits. Credit only granted for: KNES464 or KNES498L.

Examines the role of metabolism in kinesiology, especially as it relates to physical inactivity, health and disease. Includes bioenergetics, substrate utilization, cell signaling, and metabolic gene expression and their impact on chronic health conditions or disease.

0101	Sarah Glancy	Seats (Total: 29)
	TuTh 8:00am - 9:15am	ATL 2416

KNES464H **Exercise Metabolism: Role in Health and Disease**

(Perm req)

Credits: 3

Grading Method: Regular, Pass-Fail, Audit

Prerequisite: Minimum grade of C- in KNES360. Restriction: Must have earned a minimum of 75 credits. Credit only granted for: KNES464 or KNES498L.

Examines the role of metabolism in kinesiology, especially as it relates to physical inactivity, health and disease. Includes bioenergetics, substrate utilization, cell signaling, and metabolic gene expression and their impact on chronic health conditions or disease.

0101	Sarah Glancy TuTh 8:00am - 9:15am	Seats (Total: 3) ATL 2416

KNES465 **Physical Activity and Disease Prevention and Treatment**

Credits: 3

Grading Method: Regular, Pass-Fail, Audit

Prerequisite: 1 course with a minimum grade of C- from (KNES320, KNES360). Restriction: Must have earned a minimum of 75 credits. Credit only granted for: KNES465 or KNES498A.

Critically examines the scientific evidence that supports the use of physical activity to prevent and treat age-related diseases, including cardiovascular disease, diabetes, abnormal lipoprotein-lipid levels, hypertension, obesity, osteoporosis and cancer.

0101	Sushant Ranadive TuTh 9:30am - 10:45am	Seats (Total: 27) ATL 2330

KNES465H **Physical Activity and Disease Prevention and Treatment**

(Perm req)

Credits: 3

Grading Method: Regular, Pass-Fail, Audit

Prerequisite: 1 course with a minimum grade of C- from (KNES320, KNES360). Restriction: Must have earned a minimum of 75 credits. Credit only granted for: KNES465 or KNES498A.

Critically examines the scientific evidence that supports the use of physical activity to prevent and treat age-related diseases, including cardiovascular disease, diabetes, abnormal lipoprotein-lipid levels, hypertension, obesity, osteoporosis and cancer.

0101	Sushant Ranadive TuTh 9:30am - 10:45am	Seats (Total: 3) ATL 2330

KNES477 **Honors Thesis**

(Perm req)

Credits: 3

Grading Method: Regular, Pass-Fail

General Education: DSSP

Prerequisite: KNES476. Corequisite: KNES478. Restriction: Must be a KNES Honors student; and senior standing. Credit only granted for: KNES399 or KNES477.

Advisement will be on the individual basis. Thesis must be defended in the honors seminar.

0101	Tim Kiemel F 10:00am - 10:50am Contact instructor or department for details.	Seats (Total: 10) SPH 0301

KNES478 **Honors Seminar; Honors Seminar**

(Perm req)

Credits: 1 Grading Method: Regular, Pass-Fail

Guided discussion of research topics of current interest.

0101	Tim Kiemel F 11:00am - 11:50am	Seats (Total: 20) SPH 0301

KNES484 **Sporting Hollywood**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Prerequisite: Minimum grade of C- in KNES287 and KNES293. Restriction: Must be in a major within the SPHL-Kinesiology department; and must have earned a minimum of 75 credits. Credit only granted for: KNES484 and KNES498N.

Popular representations of sport within the film media related to wider social discourses on bodies and the politics of various categories of subjectivity (gender, sex, race, class and nationality).

0101	Michael Friedman MW 3:30pm - 4:45pm	Seats (Total: 30) JMZ 2207

KNES485 **Sport and Globalization**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit General Education: DVUP

Prerequisite: Minimum grade of C- in KNES287. Restriction: Must be in a major within the SPHL-Kinesiology department; and must have earned a minimum of 75 credits.

Examination of sport culture from a global perspective; focuses on theorizing the similarities and differences between various national sporting cultures.

0101	David Andrews Class time/details on ELMs	Seats (Total: 50) ONLINE

KNES497 **Kinesiology Senior Seminar**

(Perm req)

Credits: 3 | Grading Method: Regular, Pass-Fail | CORE: CS | General Education: DSSP

Prerequisite: A professional writing course with a minimum grade of C-; and must have completed 6 KNES core courses and 2 KNES option courses, all with a C- or higher; and must have completed STAT100 with a C- or better. Restriction: Senior standing or higher; and must be in Kinesiology program; and permission of department.

Discussions of contemporary issues vital to the discipline, critiques of research in the student's area/areas of special interest, completion of a major project where the student will be asked to demonstrate the ability to carry out investigative processes in problem solving and critical writing under faculty direction.

Click here for more information.

0102	Ronald Mower TuTh 3:30pm - 4:45pm *Historicizing Modern Sport, Physical Education, and Physical Culture*	Seats (Total: 20) ATL 0201
0103	James Hagberg Tu 8:00am - 10:30am *"Physical Activity and the Obesity and Diabetes Epidemic"*	Seats (Total: 20) SPH 0305
0104	Davi Mazala Tu 4:30pm - 7:00pm *Adaptations of Skeletal Muscle with Disease and Exercise Training*	Seats (Total: 20) SPH 0223
0106	David Klossner TuTh 11:00am - 12:15pm *"Hot Topics in Sports Medicine"*	Seats (Total: 16) SPH 0305
0108	Ross Miller W 8:00am - 10:30am *Biomechanical Forces and Human Musculoskeletal Health*	Seats (Total: 20) JMP 1109

0109	Jo Zimmerman M 8:00am - 10:30am *Exercise & Brain Health: From Psychobiology to Behavior.*	Seats (Total: 20) JMP 1109
0110	Jay Goldstein TuTh 2:00pm - 3:15pm *Applied Sport and Exercise Psychology for Practitioners.*	Seats (Total: 20) SPH 0303
0112	Jennifer Roberts W 4:00pm - 6:30pm *Physical Activity and the Built Environment in Kinesiology*	Seats (Total: 20) SPH 0305
0115	Kyle Jaquess Th 4:00pm - 6:30pm *Neuroscience of Human Learning and Performance*	Seats (Total: 20) SPH 0305
0116	Michael Friedman TuTh 11:00am - 12:15pm *Sport, Physical Activity, & the City*	Seats (Total: 20) ATL 0201

KNES498 **Special Topics in Kinesiology**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Topics of special interest in areas not covered by regularly scheduled courses.

This class does NOT fulfill a KNES Options Requirement.

Contact department for information to register for this course.

KNES498T **Special Topics in Kinesiology; Principles and Applications of Exercise Rehabilitation**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Topics of special interest in areas not covered by regularly scheduled courses.

Prerequisites: KNES300/KNES300H and KNES360/KNES360H. Students will learn the basic principles of exercise and rehabilitation of commonly seen injuries in a clinical setting. They will also learn basic assessment techniques, review normal ranges of motion, and determine how the function of the muscles directly affects the rehabilitation process.

0101	Larry Plotkin TuTh 8:00am - 9:15am	Seats (Total: 35) SPH 0302

KNES498W **Special Topics in Kinesiology; Prosthetics for Limb Amputations**

Credits: 3 Grading Method: Regular, Pass-Fail

Topics of special interest in areas not covered by regularly scheduled courses.

Prerequisite: KNES300. Introduction to the science of prosthetics and the artificial devices that are designed, developed and fit to replace the missing body part or parts lost through trauma, disease or congenital conditions.

0101	Douglas Collier Th 8:00am - 10:30am	Seats (Total: 34) SPH 0305

KNES601 **Epidemiology of Physical Activity**

Credits: 3 Grading Method: Regular, Audit, Sat-Fail

Prerequisite: KNES600; and must have completed an undergraduate statistics course (e.g., STAT100 or equivalent).

An exploration of basic epidemiological study design, methods, and health outcomes in the field of physical activity.

0101	Jennifer Roberts Tu 4:00pm - 6:30pm	Seats (Total: 15) Location: TBA

KNES602 **Physical Activity Program Planning and Evaluation**

Credits: 3 Grading Method: Regular, Audit, Sat-Fail

Recommended: KNES600.

An in-depth analysis of the planning, implementation, and evaluation of physical activity interventions and programs intended to achieve physical activity and public health goals.

0101	Brit Saksvig W 1:00pm - 3:30pm	Seats (Total: 10) SPH 2334

KNES609 **Research Issues in Kinesiology**

(Perm req)

Credits: 1

Grading Method: Regular, Sat-Fail

Issues, methodologies, and critical analyses of current research in Kinesiology.

Contact department for information to register for this course.

KNES610 **Methods and Techniques of Research**

Credits: 3

Grading Method: Regular, Audit, Sat-Fail

Studies methods and techniques of research used in Kinesiology; an analysis of examples of their use; and practice in their application to problems of interest to the student.

0101	Seppo Iso-Ahola W 4:00pm - 6:30pm	Seats (Total: 15) SPH 0303

KNES618 **Current Readings in Exercise and Applied Physiology**

Credits: 1

Grading Method: Regular, Audit, Sat-Fail

Student-led presentations of contemporary literature in the areas of genetics, exercise science, fitness and health. Emphasis on papers describing new research findings, novel techniques, innovative methods, and emerging issues.

0101	James Hagberg F 1:00pm - 1:50pm	Seats (Total: 15) SPH 2334

KNES689 **Special Problems in Kinesiology**

(Perm req)

Credits: 1-6

Grading Method: Regular, Sat-Fail

Master or doctoral candidates who desire to pursue special research problems under the direction of their advisor may register for 1-6 hours of credit under this number.

Contact department for information to register for this course.

KNES689N **Special Problems in Kinesiology; Curriculum Development in Physical Education**

(Perm req)

Credits: 3

Grading Method: Regular, Audit, Sat-Fail

Master or doctoral candidates who desire to pursue special research problems under the direction of their advisor may register for 1-6 hours of credit under this number.

IH60	Cara Grant Tu 4:30pm - 7:30pm	Seats (Total: 15) Location: TBA

KNES689O **Special Problems in Kinesiology; Psychology of Exercise and Health**

Credits: 3 Grading Method: Regular, Audit, Sat-Fail

Master or doctoral candidates who desire to pursue special research problems under the direction of their advisor may register for 1-6 hours of credit under this number.

0101	Seppo Iso-Ahola M 4:00pm - 6:30pm	Seats (Total: 5) SPH 1302

KNES689T **Special Problems in Kinesiology; Teaching Internship**

(Perm req)

Credits: 1-6 Grading Method: Regular, Audit, Sat-Fail

Master or doctoral candidates who desire to pursue special research problems under the direction of their advisor may register for 1-6 hours of credit under this number.

Outreach Secondary MCERT-KNES. Departmental permisson required. Students are required to pay a course fee; refer to program materials for details.

CE01	Cara Grant Contact instructor or department for details.	Seats (Total: 10)

KNES694 **Metabolic Aspects of Exercise Physiology**

Credits: 3 Grading Method: Regular, Audit, Sat-Fail

Prerequisite: KNES360. Recommended: BCHM462 and BCHM461.

Effects of exercise on digestion, absorption, transport, storage, mobilization, and utilization of macronutrients. Emphasis on the effects of exercise training on energy metabolism.

0101	Steven Prior M 4:00pm - 6:30pm	Seats (Total: 15) SPH 0125

KNES711 **Professional Development and Grantsmanship**

Credits: 3 Grading Method: Regular, Audit, Sat-Fail

Restriction: Must be a Doctoral student; and must be in a major in SPHL-School of Public Health. Credit only granted for: KNES711 or KNES789X. Formerly: KNES789X.

Enhance continued professional development through an exploration of culture, climate, expectations and mentoring in research I universities. Generate a grant application including the hypothesis, structure, specific aims, background and significance, and submission of a total grant. Grant process and product will be emphasized.

0101	James Hagberg	Seats (Total: 15)
	W 4:00pm - 6:30pm	SPH 2334

KNES778 **Internship in Physical Activity and Public Health**

Credits: 1-4 Grading Method: Regular, Sat-Fail

The internship is a time-limited, supervised period of public/community health activities carried out in a health or allied health organization involved with physical activity. Students gain practical experience in areas such as program planning and implementation, program evaluation, public policy analysis, research, and management.

0101	Shannon Jette	Seats (Total: 5)
	Contact instructor or department for details.	

KNES786 **Capstone Project in Physical Activity and Public Health**

Credits: 3 Grading Method: Regular, Sat-Fail

Prerequisite: KNES600, KNES601, and KNES602.

The culminating experience in which the student applies knowledge and skills learned in the MPH program to conduct independent work on a physical activity problem under the supervision of a faculty advisor.

0101	Shannon Jette	Seats (Total: 5)
	Contact instructor or department for details.	

KNES789 **Advanced Projects in Kinesiology**

(Perm req)

Credits: 1-3 Grading Method: Regular, Sat-Fail

Advanced projects examining current problems and trends in kinesiology.

Contact department for information to register for this course.

KNES789L **Advanced Projects in Kinesiology; Quantification and Analysis of Human Movement Using LabVIEW**

Credits: 3 Grading Method: Regular, Sat-Fail

Advanced projects examining current problems and trends in kinesiology.

An introduction to the principles and application of measuring instruments and devices for obtaining experimental data in Kinesiology research. Students will have hands-on experiences throughout the semester. The purpose of this course is to introduce students to the methods and techniques used in virtual instruments (VI) programming in LabVIEW.

0101	Hyun Kwon	Seats (Total: 15)
	Tu 4:00pm - 6:30pm	SPH 2334

KNES789R **Advanced Projects in Kinesiology; Brain Dynamics and EEG: Applications to Cognitive-motor Performance**

Credits: 3 Grading Method: Regular, Sat-Fail

Advanced projects examining current problems and trends in kinesiology.

Prerequisites: NACS641 (Introduction to Neuroscience), and one of KNES689D (Special Problems in Kinesiology: Physiological Signal processing course. This course covers the theory and practice of electroencephalography, which includes, but not limited to, the basic principles of EEG (synaptic sources, volume conduction, electrodes, recording techniques, etc.), various EEG rhythms that reflect cognitive processing, signal processing, conventional analytic methods such as event-related potentials and spectral analysis as well as computational approaches like source localization and functional connectivity. This course may provide coverage of other electrography such as electrooculography (EOG) electromyography (EMG), and electrocardiography (ECG or EKG).

0101	Hyuk Oh	Seats (Total: 15)
	TuTh 4:00pm - 5:15pm	JMZ 3122

KNES789W **Advanced Projects in Kinesiology; Modeling & Simulation of Human Movement**

Credits: 3 Grading Method: Regular, Sat-Fail

Advanced projects examining current problems and trends in kinesiology.

Development of physics-based models for simulating the biomechanics of human movement on computers.

0101	Ross Miller	Seats (Total: 15)
	M 4:00pm - 6:30pm	SPH 0223

KNES799 **Master's Thesis Research**

(Perm req)

Credits: 1-6 Grading Method: Sat-Fail

Contact department for information to register for this course.

KNES898 **Pre-Candidacy Research**

(Perm req)

Credits: 1-8 Grading Method: Regular, Sat-Fail

Contact department for information to register for this course.

KNES899 **Doctoral Dissertation Research**

(Perm req)

Credits: 6 Grading Method: Sat-Fail

Contact department for information to register for this course.

KORA Korean Spring 2020

KORA102 **Elementary Korean II**

Credits: 3 Grading Method: Regular, Pass-Fail

Prerequisite: KORA101; or must have appropriate Foreign Language Placement Test (FLPT) score.
Restriction: Must be a non-Heritage student; and permission of instructor required for new students.

Continued training in elementary spoken and written Korean.

0101	So-Hye Park, Seong Minne Koh MWF 10:00am - 10:50am	Seats (Total: 15) JMZ 2125
0201	So-Hye Park, Seong Minne Koh MWF 11:00am - 11:50am	Seats (Total: 15) JMZ 3118
0301	So-Hye Park, Seong Minne Koh MWF 2:00pm - 2:50pm	Seats (Total: 15) JMZ 2123

KORA202 **Intermediate Korean II**

Credits: 3 Grading Method: Regular, Pass-Fail CORE: HO

Prerequisite: KORA201; or permission of instructor.

The second stage of an intermediate-level course designed for non-Heritage students. It continues the second year of instruction in the University's two track Korean Program.

0201	Younghi Ramsey, So-Hye Park	Seats (Total: 15)
	MWF 1:00pm - 1:50pm	JMZ 3120

KORA345 **Korean Language and Linguistics**

Credits: 3 Grading Method: Regular, Pass-Fail

Prerequisite: KORA102 or KORA211; or permission of ARHU-School of Languages, Literatures, and Cultures department. Credit only granted for: KORA345 and KORA399A.

An exploration of Korean language and society, in particular the role and nature of the alphabet, Korean sounds, lexical and grammatical structures, and usage in today's South Korea.

This course fulfills one Korean studies elective requirement for the KORA minor.

0101	Samuel Ramsey	Seats (Total: 15)
	MW 2:00pm - 3:15pm	JMZ 1124

KORA398A **Special Topics in Korean Studies; Language and Society of the Two Koreas**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Study of particular aspect of Korean language, literature, and/or culture. Topic and language of instruction to be announced when course is offered.

This is a Big Ten Academic Alliance Course-Share course. The instructor Prof. Hangte Cho, is at the University of Minnesota. UMD students enroll and attend the class at UMD. This course offers an introduction and contrastive analysis of the language and society of the two Koreas; the Republic of Korea (better known as South Korea) and the Democratic Peoples Republic of Korea (better known as North Korea) with a heavier emphasis on North Korea. This course will introduce the growing divide of the past 70 years between North andSouth Korea in the areas of language, society, and culture. Mass media portrays the controversial political and human rights issues of North Korea but generally lacks in coverage of linguistic issues and everyday life there. The course content will be based on various scholarly articles and book chapters, current web-basedresources, news reports, North Korean propaganda, and documentaries. This course has no pre-requisites and does not expect students to have abackground in political science, Korean history, or sociology, nor a background on North Korea.

0101	Instructor: TBA	Seats (Total: 10)
	MW 3:00pm - 4:15pm	JMZ 1205

KORA398Z **Special Topics in Korean Studies; Advanced Korean II**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Study of particular aspect of Korean language, literature, and/or culture. Topic and language of instruction to be announced when course is offered.

0101	Younghi Ramsey MW 2:00pm - 3:15pm	Seats (Total: 15) JMZ 1215	

KORA499 **Independent Study Korean**

(Perm req)

Credits: 1-3 Grading Method: Regular, Pass-Fail

Independent study under faculty supervision.

Contact department for information to register for this course.

LARC Landscape Architecture Spring 2020

LARC120 **Digital Fundamentals**

(Perm req)

Credits: 2 Grading Method: Regular, Pass-Fail

Restriction: Permission of AGNR-Plant Science & Landscape Architecture department; and must be in Landscape Architecture program.

An introduction to fundamental computer tools and techniques commonly used in design communication and landscape architecture practice. Non-drafting computer tools will be used to orient basic digital image capture, manipulation, and presentation formatting.

0101	Christiane Machado Tu 2:00pm - 2:50pm Tu 3:00pm - 4:40pm	Seats (Total: 20) PLS 2137 PLS 2137	 Lab
0102	Christiane Machado Th 2:00pm - 2:50pm Th 3:00pm - 4:40pm	Seats (Total: 20) PLS 2137 PLS 2137	 Lab

LARC151 **Urban Agriculture: Designing and Assessing Edible Landscapes**

Credits: 3 Grading Method: Regular, Pass-Fail General Education: DSSP, SCIS

Students will examine the growing development of urban agriculture and edible landscapes. Urban agriculture has seen a recent growth and interest in cities across the globe. From Paris to New York, from Baltimore to Detroit, urban agriculture is an emerging land use to address a variety of needs. Redevelopment, food deserts, community engagement and environmental justice are just some of the issues and topics that are connected to the recent growth of urban agriculture. This course will take a critical examination of urban agriculture's contribution to the food system, its input and outputs in the urban landscape, and the planning and design of urban agriculture and edible landscapes.

0101	Kelley Oklesson MW 11:00am - 11:50am M 12:00pm - 12:50pm	Seats (Total: 20) PLS 1140 PLS 1164	 Discussion
0102	Kelley Oklesson MW 11:00am - 11:50am M 1:00pm - 1:50pm	Seats (Total: 20) PLS 1140 PLS 1164	 Discussion
0103	Kelley Oklesson MW 11:00am - 11:50am W 12:00pm - 12:50pm	Seats (Total: 20) PLS 1140 PLS 1162	 Discussion
0104	Kelley Oklesson MW 11:00am - 11:50am W 1:00pm - 1:50pm	Seats (Total: 20) PLS 1140 PLS 1162	 Discussion
0105	Kelley Oklesson MW 11:00am - 11:50am M 12:00pm - 12:50pm	Seats (Total: 20) PLS 1140 PLS 1115	 Discussion

LARC160 **Introduction to Landscape Architecture**

Credits: 3	Grading Method: Regular, Pass-Fail	CORE: HO	General Education: DSHU, DSSP

History, theory, philosophy and current practice of the profession of landscape architecture. Explores the interactive relationship between humans and their environment by examining people's perceptions of and changing attitude towards the landscape, as well as, an examination of how these are related to ecological and cultural influences. Topics include urban, ecological, community and creative design.

0101	Dennis Nola MW 10:00am - 10:50am M 11:00am - 11:50am	Seats (Total: 19) PLS 1140 PLS 1168	 Discussion

0102	Dennis Nola MW 10:00am - 10:50am M 12:00pm - 12:50pm	Seats (Total: 19) PLS 1140 PLS 1168	 Discussion
0103	Dennis Nola MW 10:00am - 10:50am W 12:00pm - 12:50pm	Seats (Total: 19) PLS 1140 PLS 1115	 Discussion
0104	Dennis Nola MW 10:00am - 10:50am W 1:00pm - 1:50pm	Seats (Total: 18) PLS 1140 PLS 1115	 Discussion
0105	Dennis Nola MW 10:00am - 10:50am W 12:00pm - 12:50pm	Seats (Total: 20) PLS 1140 PLS 1113	 Discussion

LARC221 **Digital Design Tools**

(Perm req)

Credits: 3 Grading Method: Regular, Pass-Fail

Prerequisite: LARC120 and LARC141. Recommended: LARC240 and LARC265. Restriction: Sophomore standing or higher; and must be in Landscape Architecture program.

The development and application of computing skills as used by the landscape architecture profession. This Computer-Aided Design and Drafting (CADD) course develops computer drafting using a variety of software programs. It also introduces students to Geographic Information Systems (GIS) mapping technologies.

0101	John Wray IV TuTh 11:00am - 12:15pm TuTh 12:30pm - 1:45pm	Seats (Total: 15) PLS 2137 PLS 2137	 Lab

LARC240 **Graphic Communication and Design Studio**

(Perm req)

Credits: 4 Grading Method: Regular, Pass-Fail

Prerequisite: LARC141 and LARC263. Corequisite: LARC221 and LARC265. Restriction: Sophomore standing or higher; and must be in Landscape Architecture program.

Exploration of graphic presentation techniques and original concept development for landscape architecture planning and design.

0101	Naomi Sachs MW 2:00pm - 2:50pm MW 3:00pm - 4:50pm	Seats (Total: 15) PLS 2152 PLS 2152	 Lab

LARC263 **History of Landscape Architecture**

Credits: 3 | Grading Method: Regular, Pass-Fail | CORE: HA | General Education: DSHU

A survey of landscape architecture history from the ancient Western civilizations to the twentieth century with consideration of parallel developments in the Eastern World, European Africa and the Americas.

0101	Caren Yglesias TuTh 9:30am - 10:45am *For LARC majors only.*	Seats (Total: 20) PLS 1119
0102	Caren Yglesias TuTh 9:30am - 10:45am	Seats (Total: 10) PLS 1119

LARC321 **Landscape Structures and Materials**

(Perm req)

Credits: 3 | Grading Method: Regular, Pass-Fail

Prerequisite: LARC320; and LARC340. Restriction: Must be in Landscape Architecture program. Credit only granted for: LARC321 or PLSC321.

An examination of the use, properties, and detailing of materials used in landscape construction. The use and design of structures in the landscape.

0101	Daniel Straub TuTh 9:30am - 10:45am Th 11:00am - 12:15pm	Seats (Total: 15) PLS 1111 PLS 2150	 Lab

LARC341 **Regional Design Studio**

(Perm req)

Credits: 5 | Grading Method: Regular, Pass-Fail

Prerequisite: LARC320; and LARC340. Restriction: Junior standing or higher; and must be in Landscape Architecture program.

An examination of the landscape architect's role within the interdisciplinary regional design field incorporating GIS technologies, spatial modeling, and the regional design process.

A Partnership for Action Learning in Sustainability (PALS) course where students apply classroom learning to actual community needs.

0101	Christopher Ellis	Seats (Total: 15)	
	MW 1:00pm - 1:50pm	PLS 2150	
	MW 2:00pm - 4:50pm	PLS 2150	Lab

LARC461 **People and the Environment**

Credits: 3 Grading Method: Regular, Pass-Fail

Credit only granted for: LARC489K or LARC461. Formerly: LARC489K.

Focus is placed on human and environmental interactions. Students will look at both natural and built environments and how they influence human health and well-being. Many environmental settings will be examined. These include hospitals, public housing neighborhoods, school settings, retirement communities, transportation corridors and green spaces. We will also explore how racial and socio-economic factors affect living and working environmental conditions. Ultimately, students will be using this knowledge to create environments that support individuals, families and various community groups' health and well-being.

0101	Byoung-Suk Kweon	Seats (Total: 29)	
	M 9:00am - 10:50am	PLS 1111	
	W 9:00am - 9:50am	PLS 1111	

LARC471 **Capstone Studio: Community Design**

(Perm req)

Credits: 5 Grading Method: Regular, Pass-Fail CORE: CS

Prerequisite: LARC440; and LARC470. Restriction: Senior standing; and must be in Landscape Architecture program.

A capstone experience that emphasizes the integration of critical thinking skills and methodologies introduced throughout the landscape architecture curriculum. Students apply design and analysis methodologies, evaluate alternative solutions, involve community residents and engage in final design development, using the master plan and site design process, report writing, and oral and graphic presentations. Final presentations are open to the university and the community.

A Partnership for Action Learning in Sustainability (PALS) course where students apply classroom learning to actual community needs.

0101	Byoung-Suk Kweon	Seats (Total: 15)	
	MW 1:00pm - 1:50pm	PLS 2148	
	MW 2:00pm - 4:50pm	PLS 2148	Lab

LARC489E **Special Topics in Landscape Architecture; Planting Design**

(Perm req)

Credits: 3

Grading Method: Regular, Pass-Fail

Credit according to time scheduled and organization of course. A lecture and/or studio course organized as an in-depth study of a selected specialization of landscape architecture not covered by existing courses.

This course is for LARC majors only.

0101	Sherry Russell, Ann Anderson F 9:00am - 11:50am	Seats (Total: 15) PLS 0104	

LARC499 **Independent Studies in Landscape Architecture**

(Perm req)

Credits: 1-4

Grading Method: Regular, Pass-Fail

Independent studies in landscape architecture including field, studio or library research under the direction of a faculty member.

Contact department for information to register for this course.

LARC641 **Graduate Studio II**

(Perm req)

Credits: 5

Grading Method: Regular, Audit, Sat-Fail

Prerequisite: LARC640. Corequisite: LARC720. Restriction: Permission of AGNR-Plant Science & Landscape Architecture department.

Principles and techniques of site analysis, environmental design and site development for human settlements and interaction with natural systems. Will expand analytical skills through complex site design problems. Students will research, observe and apply low impact development and sustainable practices, become familiar with building and landscape types by investigating alternative arrangements on the land, and understand user needs and design for populations with a range of abilities. Will support LEED and sustainable practices and acknowledge the requirements of public health, safety, and welfare.

A Partnership for Action Learning in Sustainability (PALS) course where students apply classroom learning to actual community needs.

0101	Dennis Nola TuTh 1:00pm - 1:50pm TuTh 2:00pm - 4:50pm	Seats (Total: 10) PLS 1142 PLS 1142	 Lab

LARC648 **Graduate Studio IV**

(Perm req)

Credits: 5

Grading Method: Regular, Audit, Sat-Fail

An exploration that will focus on issues in landscape planning and design such as campus planning, urban housing and recreation, and neighborhood preservation, restoration and development. Projects will emphasize the value of responsible academic and civic landscapes, the place of historic resources in contemporary life, and innovative solutions for the integration of past and future landscapes.

An exploration that will focus on issues in landscape planning and design such as campus planning, urban housing and recreation, and neighborhood preservation, restoration and development. Projects will emphasize the value of responsible academic and civic landscapes, the place of historic resources in contemporary life, and innovative solutions for the integration of past and future landscapes.

0101	Jack Sullivan	Seats (Total: 10)	
	TuTh 1:00pm - 1:50pm	PLS 2154	
	TuTh 2:00pm - 4:50pm	PLS 2154	Lab

LARC663 **Landscape and Garden History**

(Perm req)

Credits: 3

Grading Method: Regular, Audit, Sat-Fail

Restriction: Permission of AGNR-Plant Science & Landscape Architecture department.

History of garden making and its evolution into design practice. Students will become familiar with narratives of garden art and landscape architecture through the study of selected key sites, designers, and visual written sources. A focus on gardens' past and afterlife; the nature of primary sources (both built and written), and how these can be evaluated and used. Primary sources will be drawn from several disciplines and include a wide array of genres: treatises, epistolary exchanges, tax returns, novels, poems, paintings and drawings.

0101	Jack Sullivan	Seats (Total: 10)	
	Tu 9:30am - 10:45am	PLS 0104	
	Tu 11:00am - 12:15pm	PLS 0104	

LARC671 **Landscape Architecture Research Methods**

(Perm req)

Credits: 3

Grading Method: Regular, Audit, Sat-Fail

Restriction: Permission of AGNR-Plant Science & Landscape Architecture department.

Investigation and discussion of broad scope of research methods and the development of landscape design and planning research techniques and skills. The urban environment will be viewed primarily as a social and psychological environment, with concern for who uses these environments and the conflicts that can arise between user groups.

0101	Naomi Sachs	Seats (Total: 15)	
	W 10:00am - 12:50pm	PLS 1172	

LARC689C **Special Topics in Landscape Architecture; Land Art: Interventions, Mediations, Meditations**

Credits: 3 Grading Method: Regular, Audit, Sat-Fail

Special topics in landscape architecture

In this advanced studio/seminar course, a rich and unconventional approach to visualization of designed land is explored. Fine art practices, including painting, appropriation, found objects, land art, photography, and video, are starting points for students to develop their own dynamic visual language to communicate ideas, inspire clients, and lead positive change. Central to the course is the study of earth art or earthworks, land or environment artists, and related sculptors and nature-inspired artists such as Agnes Denes, Ian Hamilton Finlay, Hamish Fulton, Andy Goldsworthy, Michael Heizer, Nancy Holt, Derek Jarman, Agnes Martin, Maya Lin, Richard Long, Walter de Maria, Ana Mendieta, Mary Miss, Georgia O'Keefe, Dennis Oppenheim, Robert Smithson, Rachel Whiteread, and Amanda Williams.

0101	James Westwater	Seats (Total: 15)	
	MF 12:00pm - 12:50pm	PLS 0111	
	MF 1:00pm - 1:50pm	PLS 0111	Lab

LARC699 **Independent Studies in Landscape and Architecture**

(Perm req)

Credits: 1-3 Grading Method: Regular, Sat-Fail

Individual Instruction course.

Contact department for information to register for this course.

LARC720 **Environmental Analysis and Site Engineering**

(Perm req)

Credits: 3 Grading Method: Regular, Audit, Sat-Fail

Prerequisite: LARC640; or permission of AGNR-Plant Science & Landscape Architecture department. Corequisite: LARC641.

Techniques for prediction of alterations in social and natural processes brought about by human use of the land; application of such assessments to environmental management; basic methods of landscape alteration, augmentation, and control including grading, drainage, road and trail design, and stormwater management.

0101	Phillip Cho Th 8:00am - 9:50am Th 10:00am - 11:50am	Seats (Total: 10) PLS 1142 PLS 1142	 Lab

LARC799 **Master's Thesis Research**

(Perm req)

Credits: 1-6 Grading Method: Sat-Fail

Development of a terminal thesis on a problem in landscape architecture, designed to demonstrate comprehensive skills and knowledge achieved in the graduate program. The subject will be selected in consultation with an advisor and periodically reviewed with a committee headed by the advisor.

Contact department for information to register for this course.

LASC Certificate in Latin American Studies Spring 2020

LASC235 **Issues in Latin American Studies II**

Credits: 3 Grading Method: Regular, Pass-Fail CORE: HO, D General Education: DSHS, DSHU, DVUP

Cross-listed with SPAN235, PORT235. Credit only granted for: LASC235, PORT235, or SPAN235.

Major issues shaping Latin American and Caribbean societies including the changing constructions of race, ethnicity, gender and class as well as expressions of popular cultures and revolutionary practices. A continuation of LASC/PORT/SPAN234, but completion of 234 is not a prerequisite. Taught in English.

0101	Cara Snyder TuTh 11:00am - 12:15pm	Seats (Total: 30) JMZ 2206
0201	Cara Snyder TuTh 9:30am - 10:45am	Seats (Total: 30) JMZ 2206

LASC251 **Latin America Since Independence**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit General Education: DSHS, DVUP

Cross-listed with HIST251. Credit only granted for: HIST251 or LASC251.

Introductory survey of the history of Latin America from the era of independence (c. 1810-1825) through the early 1980s. Major themes include independence and sovereignty, postcolonialism and neocolonialism, nation- and state-building, liberalism, citizenship, economic development and modernization, social organization and stratification, race and ethnicity, gender relations, identity politics, reform and revolution, authoritarianism and democratization, and inter-American relations.

0101	Karin Rosemblatt	Seats (Total: 40)
	MW 2:00pm - 3:15pm	TYD 1118

LASC286 **Internship in Latin American/Caribbean Studies**

(Perm req)

Credits: 1-6 Grading Method: Regular, Pass-Fail

Prerequisite: LASC234, SPAN234, LASC235, SPAN235, LASC250, HIST250, LASC251, or HIST251; and permission of Latin American Studies Center required. Restriction: Minimum cumulative GPA of 2.5; and cannot have more than 60 credits total. Additional information: The course is primarily intended for students seeking the Certificate in Latin American Studies, but exceptions will be considered for students with educational or career interests which lie in this area. Student internships must be approved by the Director and students must secure an appropriate faculty mentor to supervise the internship course.

Internship experience with an organization that works with or studies Latin American and/or the Caribbean. This is an experiential learning course that provides semester-long training that enriches the student's academic field of study and the LASC Certificate. Students submit a final written report of how the experience ties into their major field of study.

Contact department for information to register for this course.

LASC348E **Caribbean Literature in English**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit General Education: DSHU, DVUP

Cross-listed with: ENGL362. Credit only granted for: ENGL362 or LASC348E.

Political and literary traditions that intersect in the fiction, poetry, and drama written in English by Caribbean writers, primarily during the 20th century.

Cross-listed with ENGL362. Credit granted for ENGL362 or LASC348E.

0101	Merle Collins	Seats (Total: 20)
	TuTh 11:00am - 12:15pm	TWS 1321

LASC448K **Special Topics in Latin American Studies; Postcolonialism**

Credits: 3 Grading Method: Regular, Pass-Fail

Intensive study of a selected topic related to Latin American Studies.

Cross-listed with ANTH469L, AMST498F, ENGL479O, HIST419L, and PHIL428A. Credit only granted for HIST419L, ANTH469L, AMST498F, ENGL479O, LASC448K, or PHIL428A.

0101	James Maffie	Seats (Total: 40)
	TuTh 3:30pm - 4:45pm	KEY 0116

LASC448W **Special Topics in Latin American Studies; Doing Business in Nicaragua: Microfinance and Social Value Creation**

Credits: 3 Grading Method: Regular, Pass-Fail

Intensive study of a selected topic related to Latin American Studies.

Contact department for information to register for this course.

LASC486 **Internship in Latin American/Caribbean Studies**

(Perm req)

Credits: 1-6 Grading Method: Regular, Pass-Fail

Prerequisite: Student must have completed at least two LASC courses, one of which must be a required/core course (LASC/SPAN234, LASC/SPAN235, LASC/HIST250, or LASC/HIST251); and permission of Latin American Studies Center required. Restriction: Minimum cumulative GPA of 2.5; and must have earned a minimum of 60 credits. Additional information: The course is primarily intended for students seeking the Certificate in Latin American Studies, but exceptions will be considered for students with educational or career interests which lie in this area. Student internships must be approved by the Director, and students must secure an appropriate faculty mentor for the internship course. An internship course will be approved only if a faculty supervisor is available.

Internship experience with an organization that works with or studies Latin American and/or the Caribbean. This is an experiential learning course that provides semester-long training that enriches the student's academic field of study and the LASC Certificate. Students submit a final written report of their experience, including critical analysis of the institutional relevance to their major field of study and to Latin American Studies. Students will also be asked to give an oral presentation.

Contact department for information to register for this course.

LATN Latin Spring 2020

LATN101 **Elementary Latin I**

Credits: 4 Grading Method: Regular, Pass-Fail, Audit

Additional information: A student who has two units of Latin in high school may register for LATN101 for the purposes of review, but ordinarily not for credit.

0101	Luigi De Luca	Seats (Total: 15)	
	MWF 10:00am - 10:50am	HBK 0105	
	W 9:00am - 9:50am	HBK 0105	Discussion

LATN201 **Intermediate Latin**

Credits: 4 | Grading Method: Regular, Pass-Fail, Audit | CORE: HO

Prerequisite: Must have completed LATN102 at University of Maryland, College Park; or permission of ARHU-Classics department. Formerly: LATN203.

0101	Eric Adler	Seats (Total: 15)
	MW 11:00am - 12:50pm	WDS 1127

LATN303 **Petronius**

Credits: 3 | Grading Method: Regular, Pass-Fail, Audit

Reading and analysis of Petronius' Satyricon with an emphasis on the literary climate of the Neronian Age and on the emergence of the novel as a literary genre. Readings are in Latin.

0101	Gregory Bucher	Seats (Total: 10)
	M 5:00pm - 7:40pm	MMH 1218

LATN488E **Latin Readings; Petronius**

Credits: 3 | Grading Method: Regular, Pass-Fail, Audit

The reading of one or more selected Latin authors from antiquity through the Renaissance. Reports.

0101	Gregory Bucher	Seats (Total: 10)
	M 5:00pm - 7:40pm	MMH 1218

LATN488K **Latin Readings; Seneca**

Credits: 3 | Grading Method: Regular, Pass-Fail, Audit

The reading of one or more selected Latin authors from antiquity through the Renaissance. Reports.

0101	Gregory Staley	Seats (Total: 5)
	Tu 5:00pm - 7:40pm	MMH 1218

LATN488P **Latin Readings; Latin Pedagogy**

Credits: 3

Grading Method: Regular, Pass-Fail, Audit

The reading of one or more selected Latin authors from antiquity through the Renaissance. Reports.

The class meets seven Saturdays for six hours each time. The dates are: February 8, February 15, March 7, March 28, April 4, April 18, and May 2 . February 22 and May 9 are make-up days in case of snow.

0101	Robert Matera Sa 9:00am - 3:30pm	Seats (Total: 5) MMH 1108B

LATN499 **Independent Study in Latin Language and Literature**

(Perm req)

Credits: 1-3

Grading Method: Regular, Pass-Fail, Audit

Contact department for information to register for this course.

LATN640 **Latin Pedagogy**

Credits: 3

Grading Method: Regular, Audit, Sat-Fail

Learning styles and abilities in the Latin language classroom; textbooks and workbooks for teaching Latin; integrating Roman culture into language study; computer and technological resources for Latin Language instruction; using videos and feature films in Latin and classical civilization classes; the articulation between secondary school and college-level Latin study. Meets in a series of five day-long Saturday workshops and culminates in an outreach program for secondary school Latin students. Recommended for teachers, graduate students and undergraduates plannig to teach Latin.

The class meets seven Saturdays for six hours each time. The dates are: February 8, February 15, March 7, March 28, April 4, April 18, and May 2 . February 22 and May 9 are make-up days in case of snow.

0101	Robert Matera Sa 9:00am - 3:30pm	Seats (Total: 10) MMH 1108B

LATN688K **Special Topics in Latin Literature; Seneca**

Credits: 3

Grading Method: Regular, Audit, Sat-Fail

0101	Gregory Staley Tu 5:00pm - 7:40pm	Seats (Total: 10) MMH 1218

LATN699 **Independent Studies in Latin Literature**

(Perm req)

Credits: 1-3

Grading Method: Regular, Audit, Sat-Fail

Contact department for information to register for this course.

LATN799 **Master's Thesis Research**

(Perm req)

Credits: 1-6

Grading Method: Sat-Fail

Contact department for information to register for this course.

LBSC Library Science Spring 2020

LBSC602 **Serving Information Needs**

Credits: 3

Grading Method: Regular, Audit, Sat-Fail

Restriction: Permission of INFO-College of Information Studies. Credit only granted for: LBSC602, or both LBSC601 and LBSC650.

An introduction to the skills necessary to interact directly with individuals through the exploration of user behavior theory, strategies to locate and evaluate information from print and electronic resources, and policies and procedures to ensure that all individuals can become information literate.

0101	Beth St Jean Th 6:00pm - 8:45pm	Seats (Total: 30) HBK 0109
ML01	Ursula Gorham-Oscilowski Class time/details on ELMs	Seats (Total: 30) ONLINE

LBSC611 **History of the Book**

Credits: 3

Grading Method: Regular, Audit, Sat-Fail

Restriction: Permission of INFO-College of Information Studies. Credit only granted for: LBSC611 or LBSC078B. Formerly: LBSC708B.

Introduction to the history and development of the book from pre-printing and incunabula to the post-modern book. Book illustration; publishing; collecting.

0101	Stephen Greenberg M 6:00pm - 8:45pm	Seats (Total: 30) HBK 0123

LBSC631 **Achieving Organizational Excellence**

Credits: 3

Grading Method: Regular, Audit, Sat-Fail

Restriction: Permission of INFO-College of Information Studies. Credit only granted for: LBSC631 or LBSC635.

Overview of the principles, practices, and techniques required for effective leadership and management. The innovative strategies, management responsibilities, and skills needed to achieve and sustain high organizational performance in information-based cultural institutions.

0101	Janice Young Th 6:00pm - 8:45pm	Seats (Total: 30) CHM 1228
ML01	Bruce Dearstyne Class time/details on ELMs	Seats (Total: 30) ONLINE

LBSC641 **Selecting and Evaluating of Resources for Learning**

Credits: 3

Grading Method: Regular, Audit, Sat-Fail

Restriction: Permission of INFO-College of Information Studies.

Policies and procedures for collection development, including identifying, evaluating, acquiring, providing, and promoting resources in all formats, to support learning and teaching in elementary and secondary schools.

CT01	Jennifer Sturge Class time/details on ELMs	Seats (Total: 5) ONLINE
ML01	Jennifer Sturge Class time/details on ELMs	Seats (Total: 25) ONLINE

LBSC646 **Literature and Materials for Young Adults**

Credits: 3

Grading Method: Regular, Audit, Sat-Fail

Restriction: Permission of INFO-College of Information Studies. Credit only granted for: LBSC646 or LBSC746. Formerly: LBSC746.

Survey of literature and other materials for older children and adolescents. Criteria for evaluating and using such materials as they relate to the needs, interests, reading abilities, and other capabilities of young readers.

CT01	Jennifer Sturge Class time/details on ELMs	Seats (Total: 5) ONLINE
ML01	Jennifer Sturge Class time/details on ELMs	Seats (Total: 25) ONLINE

LBSC671 **Creating Information Infrastructures**

Credits: 3 Grading Method: Regular, Audit, Sat-Fail

Restriction: Permission of INFO-College of Information Studies. Credit only granted for: LBSC671, or LBSC670 and LBSC690.

Foundations of acquiring and managing collections, information structures, indexing and discovery systems needed by information professionals. An introduction to the theoretical concepts, trends, systems, and technologies central to the information field.

0101	Jennifer Proctor M 6:00pm - 8:45pm	Seats (Total: 30) HBK 0109
CT01	P Kshetry Class time/details on ELMs	Seats (Total: 5) ONLINE
ML01	P Kshetry Class time/details on ELMs	Seats (Total: 30) ONLINE

LBSC703 **Field Study in Archives and Digital Curation**

Credits: 3 Grading Method: Regular, Audit, Sat-Fail

Prerequisite: LBSC602, LBSC631, and LBSC671; and must have completed 9 additional credits. Or permission of instructor. Restriction: Must be in Library and Information Science (Master's) program; and permission of INFO-College of Information Studies.

Supervised internship experience in archives or digital curation programs in organizations and institutions.

0101	Kenneth Heger W 6:00pm - 8:45pm	Seats (Total: 30) HBK 0103

LBSC706 **Seminar in International and Comparative Librarianship and Information Science**

Credits: 3

Grading Method: Regular, Audit, Sat-Fail

Prerequisite: LBSC602; or permission of instructor. Restriction: Permission of INFO-College of Information Studies.

Comparison and contrast of bibliographic systems, institutions, service arrangements, and professional patterns in developed and developing cultures. Libraries, information organizations, and international information systems viewed against the backdrop of national cultures. Influences of social, political, and economic factors upon these forms.

ML01	Ana Ndumu	Seats (Total: 30)
	Class time/details on ELMs	ONLINE

LBSC707 **Field Study in Information Service**

Credits: 3

Grading Method: Regular, Audit, Sat-Fail

Prerequisite: LBSC602, LBSC671, and LBSC631; and must have completed an additional 9 credits. Or permission of instructor. Restriction: Must be in Library and Information Science (Master's) program; and permission of INFO-College of Information Studies.

Supervised internship experience in a library, archive, museum, or other information organization.

ML01	Mega Subramaniam	Seats (Total: 40)
	Class time/details on ELMs	ONLINE

LBSC709 **Independent Study**

Credits: 1-3

Grading Method: Regular, Audit, Sat-Fail

Intensive individual study, reading, or research in an area of specialized interest under faculty supervision.

Signed independent study form must be presented to CLIS Admissions Office.

Contact department for information to register for this course.

LBSC713 **Planning and Evaluating Library and Information Services**

Credits: 3

Grading Method: Regular, Audit, Sat-Fail

Prerequisite: LBSC602; or permission of instructor. Restriction: Permission of INFO-College of Information Studies.

An investigation of quantitative and qualitative methods used to plan and evaluate the effectiveness of library and information services. Planning and evaluation methodologies will be analyzed and critiqued. Selected methods will be demonstrated and/or utilized.

ML01	Abbie Basile	Seats (Total: 30)
	Class time/details on ELMs	ONLINE

LBSC734 **Seminar in the Academic Library**

Credits: 3 Grading Method: Regular, Audit, Sat-Fail

Prerequisite: LBSC602; or permission of instructor. Restriction: Permission of INFO-College of Information Studies.

Role of the academic library within the framework of higher education. Planning programs and services, collections, support, fiscal management, physical plant, and cooperation.

0101	Lindsay Carpenter	Seats (Total: 30)
	Tu 6:00pm - 8:45pm	BPS 1232

LBSC741 **Seminar in School Library Administration**

Credits: 3 Grading Method: Regular, Audit, Sat-Fail

Prerequisite: INST650; or permission of instructor. Restriction: Permission of INFO-College of Information Studies.

Development, management, and evaluation of school library programs at all levels.

CT01	Renee Hill, Michelle Hamiel	Seats (Total: 5)
	Class time/details on ELMs	ONLINE
ML01	Michelle Hamiel, Renee Hill	Seats (Total: 15)
	Class time/details on ELMs	ONLINE

LBSC745 **Storytelling Materials and Techniques**

Credits: 3 Grading Method: Regular, Audit, Sat-Fail

Prerequisite: LBSC645; or permission of instructor. Restriction: Permission of INFO-College of Information Studies.

Literary sources and instruction and practice in oral techniques.

ML01	Katherine Izsak	Seats (Total: 30)
	Class time/details on ELMs	ONLINE

LBSC749 **Internship in School Libraries**

Credits: 1-6 Grading Method: Regular, Audit, Sat-Fail

Opportunities to observe and participate in the operation of school libraries at the elementary and secondary levels under the supervision of certified school librarians. Required of all School Library Media certification candidates.

ML01	Bridgette Comanda	Seats (Total: 30)
	Class time/details on ELMs	ONLINE

LBSC750 **Research and Teaching Fellowship I**

Credits: 1 Grading Method: Regular, Sat-Fail

Restriction: Permission of INFO-College of Information Studies.

Part of the Research and Teaching Fellowship program, a three-semester teacher training and professional development program in academic libraries. Fellows will complete weekly readings, participate in weekly discussions, observe information literacy instruction sessions, and co-teach at least one research session with another fellow.

Prerequisite: LBSC602

0101	Lindsay Carpenter	Seats (Total: 10)
	Tu 11:00am - 12:00pm	MCK 4100

LBSC752 **Research and Teaching Fellowship III**

Credits: 1 Grading Method: Regular, Sat-Fail

Restriction: Permission of INFO-College of Information Studies.

Part of the Research and Teaching Fellowship program, a three-semester teacher training and professional development program in academic libraries. Fellows will complete weekly readings, participate in weekly discussions, and serve as a Discussion Leader for two class periods of LBS750, Research and Teaching Fellowship I. Taken in conjunction with the field study course, either LBSC 703 or LBSC 707.

Prerequisite: LBSC751

0101	Rachel Gammons	Seats (Total: 10)
	Tu 10:00am - 11:00am	MCK 4100

LBSC770 **Metadata and Tools for Information Professionals**

Credits: 3 Grading Method: Regular, Audit, Sat-Fail

Prerequisite: LBSC671; or permission of instructor. Restriction: Permission of INFO-College of Information Studies.

Principles, standards, and practices of information representation to facilitate accessing needed information in digital bibliographic environments. Includes exposure to Metadata, XML, RDA/AACR2R, DTDs, MARC, Dublin Core, MODS, ISBN and ISSN, FRBR, FRAD, Classification systems, and Controlled Vocabularies such as LCSH, SEARS, NLM, Getty and ERIC Thesauri, and others.

ML01	Taverekere Srikantaiah	Seats (Total: 30)
	Class time/details on ELMs	ONLINE

LBSC786 **Library and Archives Preservation**

Credits: 3 Grading Method: Regular, Audit, Sat-Fail

Prerequisite: INST604; and permission of instructor. Restriction: Permission of INFO-College of Information Studies.

An introduction to library and archives materials and media, the risks that affect their preservation and strategies used to enhance preservation of library and archives collections. The course reviews preservation knowledge and skills that archival and library staff uses when providing access, managing, processing and working with collections.

0101	Beatriz Haspo	Seats (Total: 23)
	Tu 6:00pm - 8:45pm	HBK 2119

LBSC791 **Designing Principled Inquiry**

Credits: 3 Grading Method: Regular, Audit, Sat-Fail

Prerequisite: LBSC671, LBSC602, and LBSC631; and additional 9 credits of coursework applied to the MLIS degree. Or permission of instructor. Restriction: Permission of INFO-College of Information Studies.

Critical analysis of roles of information professions and institutions in integrating theory, methods, practice, policies, and values of the field, and applying them to the design of future information systems and services.

0101	Ursula Gorham-Oscilowski, Morgan Adle Tu 6:00pm - 8:45pm	Seats (Total: 30) HBK 0103
ML01	Ursula Gorham-Oscilowski, Morgan Adle Class time/details on ELMs	Seats (Total: 35) ONLINE

LGBT Lesbian Gay Bisexual Transgender Studies — Spring 2020

LGBT200 **Introduction to Lesbian, Gay, Bisexual, and Transgender Studies**

Credits: 3 | Grading Method: Regular, Pass-Fail, Audit | CORE: SB, D | General Education: DSHS, DVUP

Credit only granted for: LGBT200.

An interdisciplinary study of the historical and social contexts of personal, cultural and political aspects of LGBT life. Sources from a variety of fields, such as anthropology, history, psychology, sociology, and women's studies, focusing on writings by and about LGBT people.

0201	Sydney Lewis MWF 11:00am - 11:50am	Seats (Total: 30) LEF 1220
0301	Melissa Stevens TuTh 11:00am - 12:15pm	Seats (Total: 30) TYD 2110
0401	Damien Hagen TuTh 12:30pm - 1:45pm	Seats (Total: 30) MMH 1304

LGBT265 **Lesbian, Gay, Bisexual, and Transgender Literatures**

Credits: 3 | Grading Method: Regular, Pass-Fail, Audit | CORE: HL, D | General Education: DSHU, DVUP

Restriction: Must not have completed ENGL265. Cross-listed with ENGL265 . Credit only granted for: ENGL265 or LGBT265.

Exploration of literary and cultural expressions of sexuality and gender. Study of a range of historical periods and literary genres, such as essay, poetry, novel, drama, film. Topics include sexual norms and dissidence, gender identity and expression, the relationship between aesthetic forms and sexual subjectivity. Interpretation of texts particularly through the lens of queer theory. Examination of how sex and gender intersect with other forms of difference, including race and class.

0101	Shalom Rosenberg TuTh 12:30pm - 1:45pm	Seats (Total: 30) VMH 1207
0201	Virginia Butler MWF 1:00pm - 1:50pm	Seats (Total: 30) TWS 0236

LGBT386 **Lesbian, Gay, Bisexual, and Transgender Community Organization Internship**

(Perm req)

Credits: 3-6 | Grading Method: Regular, Pass-Fail, Audit | General Education: DSSP, DVCC

Prerequisite: 9 credits in LGBT courses. Restriction: Permission of LGBT Studies Program.

Supervised internship experience with a community organization that expressly serves lesbian, gay, bisexual, and transgender people. Students will be expected to relate course material to experience in an analysis of an organization's activities.

Contact department for information to register for this course.

LGBT448C **Special Topics in Lesbian, Gay, Bisexual, and Transgender Studies; Sex and the City**

Credits: 3 | Grading Method: Regular, Pass-Fail, Audit | , D | General Education: DVUP

In-depth study of particular themes and issues in LGBT studies.

Cross-listed with AMST498V. Credit only granted for AMST498V or LGBT448C.

0101	Christina Hanhardt MWF 2:00pm - 2:50pm	Seats (Total: 25) KEY 0116

LGBT448T **Special Topics in Lesbian, Gay, Bisexual, and Transgender Studies; Magical Black Femmes: Constructing Black Femininities**

Credits: 3 | Grading Method: Regular, Pass-Fail, Audit | , D | General Education: DVUP

In-depth study of particular themes and issues in LGBT studies.

Queer "femme" identity has its roots in 1940s and 1950s bar culture; however the term continues to have current resonance. Often juxtaposed with butch, femme is loosely defined as a queer feminine gender presentation. This course will use cultural studies and arts and humanities approaches in order to grapple with the messy magic of black femme identity as a radical critique of sexuality, whiteness, gender and intersecting categories of oppression. The messiness of "femme" is revealed when each of those terms in put into question. Who or what constitutes queer? How does one present feminine; is that merely an aesthetic choice? What constitutes feminine? Does one have to be a woman to be feminine? For black femmes, whose femininity has been circumscribed and defined not only against butchness but also against white femininity, claiming "femme" can be a means to turn that "messiness" into "magic."

0101	Sydney Lewis	Seats (Total: 30)
	MW 5:00pm - 6:15pm	WDS 1114

LGBT488C **Seminar in Lesbian, Gay, Bisexual, and Transgender Studies; Queer Theories: Canons and Counter Genealogies**

(Perm req)

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Developments in theories and methods of LGBT Studies, with emphasis upon interaction between the humanities and the social sciences in the elaboration of this interdisciplinary area of scholarship.

0101	Christina Hanhardt	Seats (Total: 12)
	Tu 3:30pm - 6:00pm	WDS 2101R

LGBT499 **Independent Study**

(Perm req)

Credits: 1-3 Grading Method: Regular, Pass-Fail, Audit

Directed research and analysis in LGBT Studies on a topic selected by the student.

Contact department for information to register for this course.

LING Linguistics Spring 2020

LING200 **Introductory Linguistics**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit CORE: SB General Education: DSHS

Credit only granted for: HESP120 or LING200. Additional information: Does not count toward the Linguistics major and does not fulfill prerequisite requirements for all upper-level courses.

An exploration of the nature of human language, designed for non-majors. Introduction to the basic concepts and methodology of modern linguistic analysis (sound systems, word formation, sentence structure). Additional topics may include: semantics, pragmatics, social aspects of language, dialects, language change, acquisition, writing systems, typology, language universals, comparison with other communication systems, etc.

0101	Tonia Bleam MW 1:00pm - 1:50pm F 2:00pm - 2:50pm	Seats (Total: 30) MMH 1400 MMH 1304	 Discussion
0104	Tonia Bleam MW 1:00pm - 1:50pm F 10:00am - 10:50am	Seats (Total: 30) MMH 1400 MMH 1304	 Discussion
0105	Tonia Bleam MW 1:00pm - 1:50pm F 11:00am - 11:50am	Seats (Total: 30) MMH 1400 MMH 1304	 Discussion
0107	Tonia Bleam MW 1:00pm - 1:50pm F 1:00pm - 1:50pm	Seats (Total: 30) MMH 1400 MMH 1304	 Discussion

LING240 **Language and Mind**

Credits: 3 | Grading Method: Regular, Pass-Fail, Audit | CORE: HO | General Education: DSHU

Additional information: Required for Linguistics majors and recommended for students in related fields.

The study of language as a cognitive phenomenon. Focus on mastering the concepts and technical skills required for further courses in linguistics. Ways of representing people's knowledge of their native language, ways in which that knowledge is attained naturally by children, and how it is used in speaking and listening. Additional topics may include: animal communication, language and the brain, language and thought.

0101	Margaret Antonisse MWF 10:00am - 10:50am	Seats (Total: 50) SQH 1119

LING248 **Introduction to Laboratory Research in Linguistics**

(Perm req)

Credits: 3 | Grading Method: Regular, Pass-Fail

Individualized, collaborative research course aimed at developing skills for laboratory research in language acquisition, sentence processing or neurolinguistics. Learning to conduct research in laboratory linguistics as part of a research team that will create original research in the field.

Prerequisite: Permission of ARHU-Linguistics department.

0101	Jeffrey Lidz	Seats (Total: 15)
	F 10:00am - 11:30am Contact instructor or department for details.	MMH 1108B

LING262 **HERITAGE LANGUAGES AND THEIR SPEAKERS**

Credits: 3 | Grading Method: Regular, Pass-Fail, Audit | General Education: DSHS, SCIS

Additional information: One class per week will be in-field instruction in collecting data from heritage speakers.

An interdisciplinary examination of the phenomenon of heritage language (a bilingual's home language which is distinct from the dominant language of the wider society). Relationship between linguistic structure, cultural and social aspects of language use, and language change. Interpretations of experimental and theoretical work. Relevance of heritage languages for linguistic theory, language policy, and education.

0101	Paulina Lyskawa	Seats (Total: 30)
	TuTh 9:30am - 10:45am	MMH 1304

LING311 **Syntax I**

Credits: 3 | Grading Method: Regular, Pass-Fail, Audit

Prerequisite: LING240.

Basic concepts, analytical techniques of generative syntax, relation to empirical limits imposed by viewing grammars as representations of a component of human mind. Aspects of current theories.

0101	Tonia Bleam	Seats (Total: 25)
	TuTh 11:00am - 12:15pm	MMH 1304

LING312 **Syntax II**

Credits: 3 | Grading Method: Regular, Pass-Fail, Audit

Prerequisite: LING311.

Continuation of LING311. Development of theories of syntax. Criteria for revising theories. Methods and strategies of scientific efforts to explain natural phenomena.

0101	Omer Preminger	Seats (Total: 20)
	TuTh 3:30pm - 4:45pm	MMH 1304

LING321 **Phonology I**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Prerequisite: LING240.

Properties of sound systems of human languages, basic concepts and analytical techniques of generative phonology. Empirical limits imposed by viewing grammars as cognitive representations. Physiological properties and phonological systems; articulatory phonetics and distinctive feature theory.

0101	Naomi Feldman	Seats (Total: 25)
	MW 2:00pm - 3:15pm	MMH 1304

LING322 **Phonology II**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Prerequisite: LING321.

Continuation of LING321. Further investigation of phonological phenomena and phonological theory. Revising and elaborating the theory of the phonological representation; interaction of phonology and morphology.

0101	William Idsardi	Seats (Total: 20)
	MW 3:30pm - 4:45pm	MMH 1304

LING330 **Historical Linguistics**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Prerequisite: LING321. Recommended: LING311.

A traditional presentation of language change. Language types and families, sounds and writing systems, grammatical categories. Reconstruction of proto-languages by internal and comparative methods.

0101	Margaret Antonisse	Seats (Total: 25)
	TuTh 2:00pm - 3:15pm	MMH 1304

LING350 **Philosophy of Language**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Prerequisite: PHIL170 or LING311. Cross-listed with PHIL360. Credit only granted for: LING350 or PHIL360.

The nature and function of language and other forms of symbolism from a philosophical perspective.

0101	Alexander Williams	Seats (Total: 21)
	TuTh 9:30am - 10:45am	TYD 2108

LING419T **Topics in Syntax; Learning the Meaning Of Modals**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Topics vary.

Prerequisite: LING311; or permission of ARHU-Linguistics department. Description: Current theories of the meaning of modal expressions (words used to talk about possibilities and necessities such as "can" or "maybe"), with a special focus on child language acquisition.

0101	Anouk Dieuleveut	Seats (Total: 10)
	MW 12:00pm - 1:15pm	MMH 1304

LING444 **Child Language Acquisition**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Prerequisite: LING311.

Examines language acquisition in infancy and early childhood: the nature of children's linguistic representations and how these develop naturally. Role of (possible) innate linguistic structure and interaction of such structure with experience. Evaluation of methods and results of current and classic research leading to contemporary models of language development.

0101	Jeffrey Lidz	Seats (Total: 20)
	TuTh 11:00am - 12:15pm	HJP 2123

LING448 **Advanced Laboratory Research in Linguistics**

(Perm req)

Credits: 2-3

Grading Method: Regular, Pass-Fail

Individualized, collaborative research course aimed at developing skills for laboratory research in language acquisition, sentence processing or neurolinguistics. Conducting a research project in laboratory linguistics as part of a team creating original research relevant to current issues in linguistics.

Prerequisite: Permission of ARHU-Linguistics department.

0101	Jeffrey Lidz	Seats (Total: 15)
	F 10:00am - 11:30am	MMH 1108B
	Contact instructor or department for details.	

LING449T **Topics in Psycholinguistics; Language and Thought**

Credits: 3

Grading Method: Regular, Pass-Fail, Audit

Critical evaluation of primary research in psycholinguistics. Relating theoretical hypotheses to experimental hypotheses and predictions. Evaluation of experimental results. Emphasis on hands-on experience and experimental methodologies. Specific topics vary.

Prerequisite: LING321 and LING311; or permission of ARHU-Linguistics department. Repeatable to 6 credits if content differs. Does language shape cognition? Do the details of our native language(s) determine how we perceive the world? Can learning language give us access to new concepts? Explores these questions through case studies that include: color categorization, spatial frames of reference, navigation, theory of mind, time, and number.

0101	Tyler Knowlton	Seats (Total: 10)
	MW 10:00am - 11:15am	MMH 1304

LING499 **Directed Studies in Linguistics**

(Perm req)

Credits: 1-3

Grading Method: Regular, Pass-Fail, Audit

Independent study or research on language under the supervision of a faculty member.

Contact department for information to register for this course.

LING499C **Directed Studies in Linguistics; Teaching Assistantship**

(Perm req)

Credits: 1-3

Grading Method: Regular, Pass-Fail, Audit

Independent study or research on language under the supervision of a faculty member.

0101	Margaret Antonisse Contact instructor or department for details.	Seats (Total: 4)
0102	Tonia Bleam Contact instructor or department for details.	Seats (Total: 4)

LING499H **Directed Studies in Linguistics**

(Perm req)

Credits: 1-3 Grading Method: Regular, Pass-Fail, Audit

Independent study or research on language under the supervision of a faculty member.

Contact department for information to register for this course.

LING611 **Issues in Syntax**

Credits: 3 Grading Method: Regular, Audit, Sat-Fail

Prerequisite: LING610.

Topics of current theoretical interest examined through data from a variety of languages.

0101	Omer Preminger, Norbert Hornstein M 2:00pm - 5:00pm	Seats (Total: 15) MMH 3416K

LING621 **Issues in Phonology**

Credits: 3 Grading Method: Regular, Audit, Sat-Fail

Prerequisite: LING620.

Topics of current interest in phonological theory examined through data from several languages.

0101	William Idsardi TuTh 11:00am - 12:15pm	Seats (Total: 10) MMH 1401G

LING641 **Issues in Psycholinguistics**

Credits: 3 Grading Method: Regular, Audit, Sat-Fail

Prerequisite: LING640.

Topics of current interest in psycholinguistics, including both theoretical approaches and experimental and analytical issues in language acquisition, language processing, and neurolinguistics.

0101	Colin Phillips	Seats (Total: 15)
	MW 12:00pm - 1:30pm	MMH 1108B

LING661 **Issues in Semantics**

Credits: 3 Grading Method: Regular, Audit, Sat-Fail

Prerequisite: LING660; or permission of ARHU-Linguistics department.

A second course in semantic theory. Application of basic concepts and methods to topics of current theoretical interest.

0101	Valentine Hacquard	Seats (Total: 15)
	TuTh 2:00pm - 3:15pm	MMH 1401G

LING689 **Independent Study**

Credits: 1-3 Grading Method: Regular, Audit, Sat-Fail

Independent studies in grammatical theory.

Contact department for information to register for this course.

LING689T **Independent Study; Pedagogy for Linguistics**

Credits: 1 Grading Method: Regular, Sat-Fail

Independent studies in grammatical theory.

Designed for novice instructors to collaboratively explore and evaluate methodologies that support teaching improvement and learner achievement.

0101	Tonia Bleam	Seats (Total: 6)
	Contact instructor or department for details.	

LING698 **Directed Study; Seminar**

Credits: 1-3 Grading Method: Regular, Audit, Sat-Fail

0101	Howard Lasnik	Seats (Total: 2)
	F 2:00pm - 5:00pm	Location: TBA

LING773 **Computational Linguistics II**

Credits: 3 Grading Method: Regular, Audit, Sat-Fail

Prerequisite: LING723, CMSC723, or INST735; or permission of instructor. Cross-listed with CMSC773, INST736. Credit only granted for: CMSC773, LING773, or INST736. Additional information: CMSC students may only receive PhD Comp. credit for CMSC723 or CMSC823, not both.

Natural language processing with a focus on corpus-based statistical techniques. Topics include: stochastic language modeling, smoothing, noisy channel models, probabilistic grammars and parsing; lexical acquisition, similarity-based methods, word sense disambiguation, statistical methods in NLP applications; system evaluation.

0101	Philip Resnik	Seats (Total: 30)
	W 2:00pm - 4:30pm	PHY 1402

LING798 **Research Papers in Linguistics**

(Perm req)

Credits: 1-6 Grading Method: Regular, Sat-Fail

Contact department for information to register for this course.

LING799 **Master's Thesis Research**

Credits: 1-6 Grading Method: Sat-Fail

Contact department for information to register for this course.

LING819G **Seminar in Syntactic Theory**

Credits: 3 Grading Method: Regular, Audit, Sat-Fail

Current topics in research on syntactic theory.

0101	Juan Uriagereka	Seats (Total: 15)
	W 2:00pm - 5:00pm	MMH 1108B

LING879E **Seminar in Semantics**

Credits: 3 Grading Method: Regular, Audit, Sat-Fail

Current topics in research in semantics.

0101	Valentine Hacquard, Jeffrey Lidz, Daniel Goodhue M 2:00pm - 5:00pm	Seats (Total: 10) MMH 1108B

LING888 **Doctoral Research Paper**

Credits: 1-6 Grading Method: Regular, Audit, Sat-Fail

Students will strengthen their abilities to formulate coherent research questions, conduct research and create a publishable piece of work. In addition, the course is part of a set of requirements to advance to doctoral candidacy.

0101	Howard Lasnik Contact instructor or department for details.	Seats (Total: 5)
0201	Norbert Hornstein Contact instructor or department for details.	Seats (Total: 5)
0401	Jeffrey Lidz Contact instructor or department for details.	Seats (Total: 5)
0601	Juan Uriagereka Contact instructor or department for details.	Seats (Total: 5)
0801	William Idsardi Contact instructor or department for details.	Seats (Total: 5)
0901	Philip Resnik Contact instructor or department for details.	Seats (Total: 5)
1001	Maria Polinsky Contact instructor or department for details.	Seats (Total: 5)
1201	Colin Phillips Contact instructor or department for details.	Seats (Total: 5)
1401	Valentine Hacquard Contact instructor or department for details.	Seats (Total: 5)
1501	Alexander Williams Contact instructor or department for details.	Seats (Total: 5)

1601	Naomi Feldman Contact instructor or department for details.	Seats (Total: 5)
1701	Ellen Lau Contact instructor or department for details.	Seats (Total: 5)
1801	Omer Preminger Contact instructor or department for details.	Seats (Total: 5)

LING889 **Directed Research**

Credits: 1-8 Grading Method: Regular, Audit, Sat-Fail

Contact department for information to register for this course.

LING896 **Research Paper in Minor Area**

Credits: 3 Grading Method: Regular, Audit, Sat-Fail

Prerequisite: LING888.

This course is designed to strengthen the students' ability to do research in a minor area of expertise, and to help them create a publishable piece. In addition, the course constitutes part of a set of requirements to advance to doctoral candidacy.

Contact department for information to register for this course.

LING898 **Pre-Candidacy Research**

Credits: 1-8 Grading Method: Regular, Sat-Fail

Contact department for information to register for this course.

LING899 **Doctoral Dissertation Research**

(Perm req)

Credits: 6 Grading Method: Sat-Fail

Contact department for information to register for this course.

MAIT Masters in the Mathematics of Advanced Industrial Tech Spring 2020

MAIT679A **Special Topics in Mathematics of Advanced Industrial Technology**

Credits: 3 Grading Method: Regular, Audit, Sat-Fail

Special topics courses are intended to expose students to the latest developments in mathematical applications. As such, the content will vary depending on the instructor and the current state-of-the-art. 679 will appear with a letter appended to distinguish different topics. New 679 courses will be added as areas of interest arise.

Contact department for information to register for this course.

MAIT699 **Independent Masters Project**

Credits: 1-3 Grading Method: Regular, Audit, Sat-Fail

This course allows students to apply advanced mathematical methods to practical, real-world problems. Projects are supervised individually by faculty members from the MAIT Program. The project's nature is flexible and determined jointly by the student and supervisor. A detailed final report must be prepared by the student and approved by the supervisor.

0101	John Benedetto Contact instructor or department for details.	Seats (Total: 5)
0102	Wojciech Czaja Contact instructor or department for details.	Seats (Total: 1)
0501	John Benedetto Contact instructor or department for details.	Seats (Total: 10)
0902	Wojciech Czaja Contact instructor or department for details.	Seats (Total: 10)
2911	Andrew Kebo Contact instructor or department for details.	Seats (Total: 5)

MATH Mathematics Spring 2020

MATH003 **Developmental Mathematics**

Credits: 3 Grading Method: Sat-Fail

A review of Intermediate High School Algebra intended for students preparing for one of the credit bearing Fundamental Studies Math Courses. It is taught in special computer labs using a self-paced computer program. The curriculum will be geared toward the student's level of algebra skills and eventual goals. There is a special fee for the course that may be applied in addition to the regular tuition charge. Students should refer to the schedule of classes for details on fees as they apply to a particular semester. The course does not carry any credit toward any degree at the University. The course is repeatable. Topics will be chosen from exponents, polynomials, linear equations, quadratic equations as well as polynomial, rational, exponential and logarithm functions and elementary probability or statistics, depending on the student.

Students must pay a special math fee.

0601	Colleen Terpos TuTh 8:00am - 10:45am	Seats (Total: 20) CEN 0200
0602	Colleen Terpos TuTh 8:00am - 10:45am	Seats (Total: 20) PHY 4220
0701	Colleen Terpos TuTh 11:00am - 1:45pm	Seats (Total: 20) CEN 0200
0702	Colleen Terpos TuTh 11:00am - 1:45pm	Seats (Total: 20) PHY 4220

MATH007 **Algebra for MATH 107**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

A review of Intermediate High School Algebra intended for students preparing for MATH107. It is taught 5 days per week for the first 5 weeks, then leads directly into a special section of MATH107, the same semester, which also meets 5 days per week. Continuation in MATH107 is conditional on the student passing the MATHEMATICS PLACEMENT EXAM at the appropriate level. Topics include linear equations, linear inequalities, operations on polynomials, factoring, solutions of quadratic equations, as well as exponential and logarithm functions. MATH007 does not carry any credit toward any degree at the University, nor is it graded. It leads to either MATH107 or MATH003, both of which are graded.

1201	Debra Franklin MTuWThF 12:00pm - 12:50pm	Seats (Total: 18) PHY 4222

MATH013 **Algebra for MATH 113**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

A review of Intermediate High School Algebra intended for students preparing for MATH113. It is taught 5 days per week for the first 5 weeks, then leads directly into a special section of MATH113, the same semester, which also meets 5 days per week. Continuation in MATH113 is conditional on the student passing the MATHEMATICS PLACEMENT EXAM at the appropriate level. Topics include exponents, polynomials, linear equations, quadratic equations, as well as polynomial, rational, exponential, logarithm functions, and trigonometry. MATH013 does not carry any credit toward any degree at the University, nor is it graded. It leads directly to MATH113 (or MATH110), or MATH003, all of which are graded.

1101	Santuria Orsetti MTuWThF 10:00am - 10:50am	Seats (Total: 22) MTH 0402
1201	Barbara Michelato MTuWThF 12:00pm - 12:50pm	Seats (Total: 22) MTH 0402

MATH015 **Algebra for MATH 115**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

A review of Intermediate High School Algebra intended for students preparing for MATH115. It is taught 5 days per week for the first 5 weeks, then leads directly into a special section of MATH115, the same semester, which also meets 5 days per week. Continuation in MATH115 is conditional on the student passing the MATHEMATICS PLACEMENT EXAM at the appropriate level. Topics include exponents, polynomials, linear equations in one and two variables, quadratic equations, as well as polynomial, rational, exponential, logarithm functions and trigonometry. MATH015 does not carry any credit toward any degree at the University, nor is it graded. It leads directly to MATH115 (or MATH111 or MATH113 or MATH110), or MATH003, all of which are graded.

1101	Ben Bezejouh MTuWThF 10:00am - 10:50am	Seats (Total: 22) ATL 1109
1201	Ben Bezejouh MTuWThF 12:00pm - 12:50pm	Seats (Total: 22) ATL 1109

MATH107 **Introduction to Math Modeling and Probability**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit General Education: FSMA

Prerequisite: Must have math eligibility of Math 107 or higher; and math eligibility is based on Math Placement Exam or successful completion of MATH003 with appropriate eligibility. Restriction: Not open to students majoring in mathematics, engineering, business, life sciences, and the physical sciences;; and must not have completed MATH120, MATH130, MATH136, or MATH140; and must not have completed MATH220; and must not have completed any MATH or STAT course with a prerequisite of MATH120, MATH130, MATH136, MATH140 or MATH220. Credit only granted for: STAT100, MATH107, MATH110, MATH111, MATH112, or MATH113. Formerly: Math 110 and Math 111. Additional information: Students who have credits for MATH107 may not also receive credits for STAT100, MATH110, MATH 111, MATH112, or MATH113.

A goal is to convey the power of mathematics as shown by a variety of problems which can be modeled and solved by quantitative means. Also included is an introduction to probability. Topics include data analysis, equations, systems of equations, inequalities, elementary linear programming, Venn diagrams, counting, basic probability, permutations, combinations, tree diagrams, standard normal and normal distributions. The mathematics of finance is covered. The course includes problem solving and decision making in economics, management, and social sciences.

0101	Victoria Whitley MWF 11:00am - 11:50am	Seats (Total: 27) MTH 0302
0201	Victoria Whitley MWF 12:00pm - 12:50pm	Seats (Total: 22) MTH 0302
0301	Christopher Dock MWF 1:00pm - 1:50pm	Seats (Total: 22) MTH 0302
0501	Julie Daberkow MW 3:00pm - 4:15pm	Seats (Total: 27) MTH 0306

MATH113 **College Algebra and Trigonometry**

Credits: 3 | Grading Method: Regular, Pass-Fail, Audit | General Education: FSMA

Prerequisite: Must have math eligibility of MATH113 or higher; and math eligibility is based on the Math Placement Exam or the successful completion of MATH 003 with appropriate eligibility. Restriction: Must not have completed MATH115, MATH120, MATH130, MATH136, or MATH140; and must not have completed any course with a prerequisite of MATH120, MATH130, MATH136, MATH140 or MATH220; and must not have completed MATH112 or MATH220. Credit only granted for: Students who have credits for MATH113 may not also receive credits for MATH107, MATH110, MATH112, or MATH115.

Topics include elementary functions including graphs and applications of: polynomial, rational, exponential, and logarithmic functions. Systems of equations and applications. Trigonometric functions: angle and radian measure, graphs and applications.

0101	Darcy Conant, JT Rustad MWF 10:00am - 10:50am	Seats (Total: 27) MTH 0105
0102	Darcy Conant, Kung-Ching Lin MWF 10:00am - 10:50am	Seats (Total: 27) MTH 0104
0103	Darcy Conant, Brandon Alexander MWF 10:00am - 10:50am	Seats (Total: 27) MTH B0429

0201	JT Rustad, Darcy Conant MWF 11:00am - 11:50am	Seats (Total: 27) MTH 0105	
0202	Kung-Ching Lin, Darcy Conant MWF 11:00am - 11:50am	Seats (Total: 27) MTH 0104	
0203	Brandon Alexander, Darcy Conant MWF 11:00am - 11:50am	Seats (Total: 27) MTH B0429	
0301	Darcy Conant, Brooke Herzog MWF 1:00pm - 1:50pm	Seats (Total: 27) MTH 0105	
0302	Blake Fritz, Darcy Conant MWF 1:00pm - 1:50pm	Seats (Total: 27) MTH 0104	
0401	Brooke Herzog, Darcy Conant MWF 2:00pm - 2:50pm	Seats (Total: 27) MTH 0105	
0402	Darcy Conant, Blake Fritz MWF 2:00pm - 2:50pm	Seats (Total: 27) MTH 0104	

MATH115 **Precalculus**

Credits: 3 | Grading Method: Regular, Pass-Fail, Audit | General Education: FSMA

Prerequisite: Must have math eligibility of MATH115 or higher; and math eligibility is based on the Math Placement Exam or the successful completion of MATH003 with appropriate eligibility. Or MATH113. Restriction: Must not have completed MATH140; and must not have completed any MATH or STAT course with a prerequisite of MATH140. Credit only granted for: Students who have credits for MATH115 may not also receive credits for MATH112 or MATH113.

Preparation for MATH120, MATH130 or MATH140. Elementary functions and graphs: polynomials, rational functions, exponential and logarithmic functions, trigonometric functions. Algebraic techniques preparatory for calculus.

Preparation for MATH 220 or MATH 140. All sections will require the use of a TI graphics calculator. Instructor will use a TI-83 or TI-83+ calculator. If purchasing used books additional software may be required.

0111	Raluca Rosca MWF 9:00am - 9:50am MWF 10:00am - 10:50am	Seats (Total: 20) ESJ 2208 PHY 4207	Discussion

0121	Raluca Rosca MWF 9:00am - 9:50am MWF 11:00am - 11:50am	Seats (Total: 20) ESJ 2208 PHY 4207	Discussion
0131	Raluca Rosca MWF 9:00am - 9:50am MWF 12:00pm - 12:50pm	Seats (Total: 20) ESJ 2208 PHY 4207	Discussion
0141	Raluca Rosca MWF 9:00am - 9:50am MWF 1:00pm - 1:50pm	Seats (Total: 20) ESJ 2208 PHY 4207	Discussion
0151	Raluca Rosca MWF 9:00am - 9:50am TuTh 9:30am - 10:45am	Seats (Total: 20) ESJ 2208 PHY 4207	Discussion
0161	Raluca Rosca MWF 9:00am - 9:50am TuTh 11:00am - 12:15pm	Seats (Total: 20) ESJ 2208 PHY 4207	Discussion
0171	Raluca Rosca MWF 9:00am - 9:50am TuTh 12:30pm - 1:45pm	Seats (Total: 20) ESJ 2208 PHY 4207	Discussion
0181	Raluca Rosca MWF 9:00am - 9:50am TuTh 2:00pm - 3:15pm	Seats (Total: 20) ESJ 2208 PHY 4207	Discussion

MATH120 **Elementary Calculus I**

Credits: 3 | Grading Method: Regular, Pass-Fail, Audit | General Education: FSAR, FSMA

Prerequisite: 1 course with a minimum grade of C- from (MATH112, MATH113, MATH115). Or must have math eligibility of MATH120 or higher; and math eligibility is based on the Math Placement Test. Restriction: Not open to students majoring in mathematics, engineering, the biological sciences, biochemistry, chemistry, or the physical sciences. Credit only granted for: MATH120, MATH130, MATH136, MATH140, or MATH220. Formerly: MATH220.

Basic ideas of differential and integral calculus, with emphasis on elementary techniques of differentiation and applications.

0111	Stefan Doboszczak MWF 11:00am - 11:50am Tu 8:00am - 8:50am	Seats (Total: 27) BRB 1101 MTH 0401	Discussion
0112	Stefan Doboszczak MWF 11:00am - 11:50am Tu 8:00am - 8:50am	Seats (Total: 27) BRB 1101 MTH 0409	Discussion
0121	Stefan Doboszczak MWF 11:00am - 11:50am Tu 9:00am - 9:50am	Seats (Total: 28) BRB 1101 MTH 0401	Discussion
0122	Stefan Doboszczak MWF 11:00am - 11:50am Tu 9:00am - 9:50am	Seats (Total: 28) BRB 1101 MTH 0409	Discussion
0131	Stefan Doboszczak MWF 11:00am - 11:50am Tu 10:00am - 10:50am	Seats (Total: 25) BRB 1101 MTH 0401	Discussion
0132	Stefan Doboszczak MWF 11:00am - 11:50am Tu 10:00am - 10:50am	Seats (Total: 28) BRB 1101 MTH 0409	Discussion
0141	Stefan Doboszczak MWF 11:00am - 11:50am Tu 11:00am - 11:50am	Seats (Total: 28) BRB 1101 MTH 0401	Discussion
0142	Stefan Doboszczak MWF 11:00am - 11:50am Tu 11:00am - 11:50am	Seats (Total: 27) BRB 1101 MTH 0409	Discussion
0211	Mestiyage Gunatilleka MWF 2:00pm - 2:50pm Th 8:00am - 8:50am	Seats (Total: 25) ARM 0135 MTH 0401	Discussion
0212	Mestiyage Gunatilleka MWF 2:00pm - 2:50pm Th 8:00am - 8:50am	Seats (Total: 25) ARM 0135 MTH 0409	Discussion

0221	Mestiyage Gunatilleka MWF 2:00pm - 2:50pm Th 9:00am - 9:50am	Seats (Total: 25) ARM 0135 MTH 0401	Discussion
0222	Mestiyage Gunatilleka MWF 2:00pm - 2:50pm Th 9:00am - 9:50am	Seats (Total: 25) ARM 0135 MTH 0409	Discussion
0231	Mestiyage Gunatilleka MWF 2:00pm - 2:50pm Th 10:00am - 10:50am	Seats (Total: 25) ARM 0135 MTH 0401	Discussion
0232	Mestiyage Gunatilleka MWF 2:00pm - 2:50pm Th 10:00am - 10:50am	Seats (Total: 25) ARM 0135 MTH 0409	Discussion
0241	Mestiyage Gunatilleka MWF 2:00pm - 2:50pm Th 11:00am - 11:50am	Seats (Total: 25) ARM 0135 MTH 0401	Discussion
0242	Mestiyage Gunatilleka MWF 2:00pm - 2:50pm Th 11:00am - 11:50am	Seats (Total: 25) ARM 0135 MTH 0409	Discussion
0311	Timothy Pilachowski TuTh 9:30am - 10:45am F 8:00am - 8:50am	Seats (Total: 27) ARM 0131 ESJ 1215	Discussion
0321	Timothy Pilachowski TuTh 9:30am - 10:45am F 9:00am - 9:50am	Seats (Total: 27) ARM 0131 ESJ 0215	Discussion
0331	Timothy Pilachowski TuTh 9:30am - 10:45am F 10:00am - 10:50am	Seats (Total: 27) ARM 0131 ESJ 1215	Discussion
0341	Timothy Pilachowski TuTh 9:30am - 10:45am F 11:00am - 11:50am	Seats (Total: 27) ARM 0131 ESJ 0215	Discussion

0411	Yordanka Kovacheva TuTh 12:30pm - 1:45pm W 8:00am - 8:50am	Seats (Total: 27) SKN 0200 MTH 0401	Discussion
0412	Yordanka Kovacheva TuTh 12:30pm - 1:45pm W 8:00am - 8:50am	Seats (Total: 27) SKN 0200 MTH 0409	Discussion
0421	Yordanka Kovacheva TuTh 12:30pm - 1:45pm W 9:00am - 9:50am	Seats (Total: 28) SKN 0200 MTH 0401	Discussion
0422	Yordanka Kovacheva TuTh 12:30pm - 1:45pm W 9:00am - 9:50am	Seats (Total: 27) SKN 0200 MTH 0409	Discussion
0431	Yordanka Kovacheva TuTh 12:30pm - 1:45pm W 10:00am - 10:50am	Seats (Total: 28) SKN 0200 MTH 0401	Discussion
0432	Yordanka Kovacheva TuTh 12:30pm - 1:45pm W 10:00am - 10:50am	Seats (Total: 28) SKN 0200 MTH 0409	Discussion
0441	Yordanka Kovacheva TuTh 12:30pm - 1:45pm W 11:00am - 11:50am	Seats (Total: 27) SKN 0200 MTH 0401	Discussion
0442	Yordanka Kovacheva TuTh 12:30pm - 1:45pm W 11:00am - 11:50am	Seats (Total: 27) SKN 0200 MTH 0409	Discussion

MATH121 **Elementary Calculus II**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Prerequisite: MATH120, MATH130, MATH136, or MATH140; or must have completed MATH220. Restriction: Not open to students majoring in mathematics, engineering, the biological sciences, biochemistry, chemistry, or the physical sciences. Credit only granted for: MATH121, MATH131, MATH141, or MATH221. Formerly: MATH 221.

Differential and integral calculus, with emphasis on elementary techniques of integration and applications.

0101	Ying Li MWF 12:00pm - 12:50pm	Seats (Total: 22) MTH 1311	
0201	Ying Li MWF 1:00pm - 1:50pm	Seats (Total: 22) MTH 1311	

MATH135 **Discrete Mathematics for Life Sciences**

Credits: 4 | Grading Method: Regular, Pass-Fail, Audit | General Education: FSAR, FSMA

Prerequisite: Minimum grade of C- in MATH115; or must have math eligibility of MATH140 or higher; and math eligibility is based on the Math Placement Test. Restriction: Must be in the Biological Sciences or Neuroscience major; and not open to students majoring in mathematics, engineering, or the physical sciences.

Basic discrete mathematics, with emphasis on relevant models and techniques to the life sciences.

0111	Casey Cremins TuTh 12:30pm - 1:45pm MW 9:00am - 9:50am	Seats (Total: 30) PHY 1412 MTH B0425	Discussion
0121	Casey Cremins TuTh 12:30pm - 1:45pm MW 10:00am - 10:50am	Seats (Total: 30) PHY 1412 MTH B0425	Discussion
0131	Casey Cremins TuTh 12:30pm - 1:45pm MW 11:00am - 11:50am	Seats (Total: 30) PHY 1412 MTH B0425	Discussion
0141	Casey Cremins TuTh 12:30pm - 1:45pm MW 12:00pm - 12:50pm	Seats (Total: 30) PHY 1412 MTH B0425	Discussion

MATH136 **Calculus for Life Sciences**

Credits: 4 | Grading Method: Regular, Pass-Fail, Audit

Prerequisite: Minimum grade of C- in MATH135. Restriction: Must be in the Biological Sciences or Neuroscience major. Credit only granted for: MATH120, MATH130, MATH136, or MATH140.

Continuation of MATH135, including basic ideas of differential integral calculus, with emphasis on elementary techniques and applications to the life sciences.

0111	Shelby Wilson TuTh 11:00am - 12:15pm MF 9:00am - 9:50am	Seats (Total: 25) ARM 0135 MTH 1308	Discussion
0121	Shelby Wilson TuTh 11:00am - 12:15pm MF 10:00am - 10:50am	Seats (Total: 25) ARM 0135 MTH 1308	Discussion
0131	Shelby Wilson TuTh 11:00am - 12:15pm MF 11:00am - 11:50am	Seats (Total: 25) ARM 0135 MTH 1308	Discussion
0141	Shelby Wilson TuTh 11:00am - 12:15pm MF 12:00pm - 12:50pm	Seats (Total: 25) ARM 0135 MTH 1308	Discussion
0211	Weikun Wang TuTh 12:30pm - 1:45pm WF 9:00am - 9:50am	Seats (Total: 20) ARM 0135 MTH B0423	Discussion
0221	Weikun Wang TuTh 12:30pm - 1:45pm WF 10:00am - 10:50am	Seats (Total: 20) ARM 0135 MTH B0423	Discussion
0231	Weikun Wang TuTh 12:30pm - 1:45pm WF 11:00am - 11:50am	Seats (Total: 25) ARM 0135 MTH B0423	Discussion
0241	Weikun Wang TuTh 12:30pm - 1:45pm WF 12:00pm - 12:50pm	Seats (Total: 20) ARM 0135 MTH B0423	Discussion

MATH140 **Calculus I**

Credits: 4	Grading Method: Regular, Pass-Fail, Audit	CORE: MS	General Education: FSAR, FSMA

Prerequisite: Minimum grade of C- in MATH115. Or must have math eligibility of MATH140 or higher; and math eligibility is based on the Math Placement Test. Credit only granted for: MATH120, MATH130, MATH136, MATH140 or MATH220.

Introduction to calculus, including functions, limits, continuity, derivatives and applications of the derivative, sketching of graphs of functions, definite and indefinite integrals, and calculation of area. The course is especially recommended for science, engineering and mathematics majors.

All sections will require the use of a TI graphics calculator. Instructor will use a TI-83, TI-83+, or TI-86 calculator. If purchasing used books additional software may be required.

0111	Amin Gholampour MWF 10:00am - 10:50am TuTh 8:00am - 8:50am	Seats (Total: 25) ESJ 0202 MTH 0407	Discussion
0112	Amin Gholampour MWF 10:00am - 10:50am TuTh 8:00am - 8:50am	Seats (Total: 25) ESJ 0202 MTH 0403	Discussion
0113	Amin Gholampour MWF 10:00am - 10:50am TuTh 8:00am - 8:50am	Seats (Total: 25) ESJ 0202 MTH 0405	Discussion
0121	Amin Gholampour MWF 10:00am - 10:50am TuTh 9:00am - 9:50am	Seats (Total: 26) ESJ 0202 MTH 0407	Discussion
0122	Amin Gholampour MWF 10:00am - 10:50am TuTh 9:00am - 9:50am	Seats (Total: 25) ESJ 0202 MTH 0403	Discussion
0123	Amin Gholampour MWF 10:00am - 10:50am TuTh 9:00am - 9:50am	Seats (Total: 25) ESJ 0202 MTH 0405	Discussion
0131	Amin Gholampour MWF 10:00am - 10:50am TuTh 10:00am - 10:50am	Seats (Total: 28) ESJ 0202 MTH 0407	Discussion
0132	Amin Gholampour MWF 10:00am - 10:50am TuTh 10:00am - 10:50am	Seats (Total: 26) ESJ 0202 MTH 0403	Discussion
0141	Amin Gholampour MWF 10:00am - 10:50am TuTh 11:00am - 11:50am	Seats (Total: 26) ESJ 0202 MTH 0407	Discussion

0142	Amin Gholampour MWF 10:00am - 10:50am TuTh 11:00am - 11:50am	Seats (Total: 26) ESJ 0202 MTH 0403	Discussion
0211	Mestiyage Gunatilleka MWF 12:00pm - 12:50pm TuTh 12:00pm - 12:50pm	Seats (Total: 25) ARM 0135 MTH B0425	Discussion
0221	Mestiyage Gunatilleka MWF 12:00pm - 12:50pm TuTh 1:00pm - 1:50pm	Seats (Total: 25) ARM 0135 MTH B0425	Discussion
0231	Mestiyage Gunatilleka MWF 12:00pm - 12:50pm TuTh 2:00pm - 2:50pm	Seats (Total: 25) ARM 0135 MTH B0425	Discussion
0241	Mestiyage Gunatilleka MWF 12:00pm - 12:50pm TuTh 3:00pm - 3:50pm	Seats (Total: 25) ARM 0135 MTH B0425	Discussion
0311	Xuemiao Chen MWF 11:00am - 11:50am TuTh 10:00am - 10:50am	Seats (Total: 28) IRB 0318 MTH 0405	Discussion
0321	Xuemiao Chen MWF 11:00am - 11:50am TuTh 1:00pm - 1:50pm	Seats (Total: 28) IRB 0318 MTH 0402	Discussion

MATH141 **Calculus II**

Credits: 4 | Grading Method: Regular, Pass-Fail, Audit | CORE: MS

Prerequisite: Minimum grade of C- in MATH140. Or 1 course with a minimum grade of B- from (MATH130, MATH136); and permission of CMNS-Mathematics department. Credit only granted for: MATH121, MATH131, MATH141, or MATH221.

Continuation of MATH140, including techniques of integration, improper integrals, applications of integration (such as volumes, work, arc length, moments), inverse functions, exponential and logarithmic functions, sequences and series.

All sections will require the use of a TI graphics calculator. Instructor will use a TI-83, TI-83+, or TI-86 calculator. Emphasis on student interaction in groups, including team approach to solving calculus based problems. In addition to the lectures, there will be 2 eighty-minute workshops each week with enhanced assistance and support for students. If purchasing used books additional software may be required.

0111	Denny Gulick MWF 8:00am - 8:50am TuTh 8:00am - 9:20am	Seats (Total: 22) PHY 1412 MTH 0102	Discussion
0112	Denny Gulick MWF 8:00am - 8:50am TuTh 8:00am - 9:20am	Seats (Total: 22) PHY 1412 MTH 0303	Discussion
0113	Denny Gulick MWF 8:00am - 8:50am TuTh 8:00am - 9:20am	Seats (Total: 22) PHY 1412 MTH 0302	Discussion
0121	Denny Gulick MWF 8:00am - 8:50am TuTh 9:30am - 10:50am	Seats (Total: 22) PHY 1412 MTH 0102	Discussion
0122	Denny Gulick MWF 8:00am - 8:50am TuTh 9:30am - 10:50am	Seats (Total: 22) PHY 1412 MTH 0303	Discussion
0123	Denny Gulick MWF 8:00am - 8:50am TuTh 9:30am - 10:50am	Seats (Total: 22) PHY 1412 MTH 0302	Discussion
0131	Denny Gulick MWF 8:00am - 8:50am TuTh 11:00am - 12:20pm	Seats (Total: 22) PHY 1412 MTH 0102	Discussion
0132	Denny Gulick MWF 8:00am - 8:50am TuTh 11:00am - 12:20pm	Seats (Total: 22) PHY 1412 MTH 0302	Discussion
0211	Timothy Pilachowski MWF 9:00am - 9:50am TuTh 8:00am - 9:20am	Seats (Total: 22) ESJ 0202 ESJ 2212	Discussion

0212	Timothy Pilachowski MWF 9:00am - 9:50am TuTh 8:00am - 9:20am	Seats (Total: 22) ESJ 0202 ESJ 2212	 Discussion
0213	Timothy Pilachowski MWF 9:00am - 9:50am TuTh 8:00am - 9:20am	Seats (Total: 22) ESJ 0202 ESJ 2212	 Discussion
0221	Timothy Pilachowski MWF 9:00am - 9:50am TuTh 9:30am - 10:50am	Seats (Total: 22) ESJ 0202 ESJ 2212	 Discussion
0222	Timothy Pilachowski MWF 9:00am - 9:50am TuTh 9:30am - 10:50am	Seats (Total: 22) ESJ 0202 ESJ 2212	 Discussion
0223	Timothy Pilachowski MWF 9:00am - 9:50am TuTh 9:30am - 10:50am	Seats (Total: 22) ESJ 0202 ESJ 2212	 Discussion
0224	Timothy Pilachowski MWF 9:00am - 9:50am TuTh 11:00am - 12:20pm	Seats (Total: 22) ESJ 0202 ESJ 2212	 Discussion
0231	Timothy Pilachowski MWF 9:00am - 9:50am TuTh 11:00am - 12:20pm	Seats (Total: 22) ESJ 0202 ESJ 2212	 Discussion
0311	Yijing Wu MWF 11:00am - 11:50am TuTh 11:00am - 12:20pm	Seats (Total: 22) ARM 0126 MTH 0105	 Discussion
0312	Yijing Wu MWF 11:00am - 11:50am TuTh 11:00am - 12:20pm	Seats (Total: 22) ARM 0126 MTH B0429	 Discussion
0313	Yijing Wu MWF 11:00am - 11:50am TuTh 11:00am - 12:20pm	Seats (Total: 22) ARM 0126 MTH 0305	 Discussion

0321	Yijing Wu MWF 11:00am - 11:50am TuTh 12:30pm - 1:50pm	Seats (Total: 22) ARM 0126 MTH 0105	Discussion
0322	Yijing Wu MWF 11:00am - 11:50am TuTh 12:30pm - 1:50pm	Seats (Total: 22) ARM 0126 MTH B0429	Discussion
0331	Yijing Wu MWF 11:00am - 11:50am TuTh 2:00pm - 3:20pm	Seats (Total: 23) ARM 0126 MTH 0105	Discussion
0411	Steven Chadwick MWF 1:00pm - 1:50pm TuTh 11:00am - 12:20pm	Seats (Total: 23) ARM 0131 MTH 0405	Discussion
0412	Steven Chadwick MWF 1:00pm - 1:50pm TuTh 11:00am - 12:20pm	Seats (Total: 23) ARM 0131 MTH 1313	Discussion
0413	Steven Chadwick MWF 1:00pm - 1:50pm TuTh 11:00am - 12:20pm	Seats (Total: 23) ARM 0131 MTH 0411	Discussion
0421	Steven Chadwick MWF 1:00pm - 1:50pm TuTh 12:30pm - 1:50pm	Seats (Total: 23) ARM 0131 MTH 0405	Discussion
0422	Steven Chadwick MWF 1:00pm - 1:50pm TuTh 12:30pm - 1:50pm	Seats (Total: 23) ARM 0131 MTH 1313	Discussion
0423	Steven Chadwick MWF 1:00pm - 1:50pm TuTh 12:30pm - 1:50pm	Seats (Total: 23) ARM 0131 MTH 0411	Discussion
0431	Steven Chadwick MWF 1:00pm - 1:50pm TuTh 2:00pm - 3:20pm	Seats (Total: 23) ARM 0131 MTH 0405	Discussion

0432	Steven Chadwick MWF 1:00pm - 1:50pm TuTh 2:00pm - 3:20pm	Seats (Total: 23) ARM 0131 MTH 0411	Discussion
0511	Nathan Manning MWF 3:00pm - 3:50pm TuTh 12:30pm - 1:50pm	Seats (Total: 23) ARM 0131 MTH B0421	Discussion
0512	Nathan Manning MWF 3:00pm - 3:50pm TuTh 12:30pm - 1:50pm	Seats (Total: 22) ARM 0131 MTH 0302	Discussion
0521	Nathan Manning MWF 3:00pm - 3:50pm TuTh 2:00pm - 3:20pm	Seats (Total: 23) ARM 0131 MTH B0423	Discussion
0531	Nathan Manning MWF 3:00pm - 3:50pm TuTh 3:30pm - 4:50pm	Seats (Total: 22) ARM 0131 MTH B0423	Discussion

MATH141H **Calculus II**

Credits: 4 | Grading Method: Regular, Pass-Fail, Audit | CORE: MS

Prerequisite: Minimum grade of C- in MATH140. Or 1 course with a minimum grade of B- from (MATH130, MATH136); and permission of CMNS-Mathematics department. Credit only granted for: MATH121, MATH131, MATH141, or MATH221.

Continuation of MATH140, including techniques of integration, improper integrals, applications of integration (such as volumes, work, arc length, moments), inverse functions, exponential and logarithmic functions, sequences and series.

For general honors students only. TI graphics calculator required. Instructor will use TI-83, TI-83+ or TI-86 calculator.

0101	Steven Chadwick W 11:00am - 12:50pm MF 11:00am - 11:50am	Seats (Total: 25) MTH 0403 MTH 0403	
0201	Changguang Dong M 12:00pm - 1:50pm WF 12:00pm - 12:50pm	Seats (Total: 25) MTH B0427 MTH B0427	

MATH199A **Special Topics in Mathematics**

(Perm req)

Credits: 3

Grading Method: Regular, Pass-Fail, Audit

Many games have a mathematical component. We will introduce several games, play them, and investigate the underlying mathematics. Students will work in teams on projects that involve developing strategies for new games.

Contact department for information to register for this course.

MATH206 **Introduction to Matlab**

Credits: 1

Grading Method: Regular, Pass-Fail, Audit

Prerequisite: 1 course with a minimum grade of C- from (MATH136, MATH140).

This course is intended to prepare students for subsequent courses requiring computation with MATLAB. Covers basics of MATLAB including simple commands, variables, solving equations, graphing differentiation and integration, matrices and vectors, functions, M-files and fundamentals of programming in the MATLAB environment. When offered in Winter and Summer terms, the course is offered in a format suitable for online distance learning.

0101	Justin Wyss-Gallifent **Meets January 27, 2020 - March 3, 2020** Class time/details on ELMs	Seats (Total: 545) ONLINE

MATH212 **Elements of Numbers and Operations**

Credits: 3

Grading Method: Regular, Pass-Fail, Audit

Prerequisite: Must have completed one year of college preparatory algebra. Restriction: Must be in one of the following programs (Early Childhood Education; Special Education; Elementary Education). Credit only granted for: MATH212 or MATH210.

Reviews and extends topics of arithmetic and number theory related to the elementary school curriculum, particularly number systems and operations with natural numbers, integers, and rationals.

0201	Tarik Buli MWF 9:00am - 9:50am	Seats (Total: 22) EDU 3236
0301	Kristyn Lue MWF 1:00pm - 1:50pm	Seats (Total: 22) EDU 2212

MATH213 **Elements of Geometry and Measurement**

Credits: 3

Grading Method: Regular, Pass-Fail, Audit

Prerequisite: MATH212. Restriction: Must be in one of the following programs (Early Childhood Education; Special Education; Elementary Education). Credit only granted for: MATH211 or MATH213.

Properties of geometric objects in two and three dimensions; parallel lines, curves and polygons; ratio, proportion, similarity; transformational geometry and measurement, constructions, justifications and proofs.

0201	Mirna Pinsky MWF 11:00am - 11:50am	Seats (Total: 22) MTH B0421	
0301	Mirna Pinsky MWF 12:00pm - 12:50pm	Seats (Total: 22) MTH B0421	

MATH214 **Elements of Probability and Statistics**

Credits: 3

Grading Method: Regular, Pass-Fail, Audit

Prerequisite: MATH212. Restriction: Must be in one of the following programs (Early Childhood Education; Special Education; Elementary Education). Credit only granted for: MATH211 or MATH214.

Permutations and combinations; probability; collecting and representing data; using statistics to analyze and interpret data.

0201	Matthew Wilson MWF 9:00am - 9:50am	Seats (Total: 22) CHM 1228	

MATH240 **Introduction to Linear Algebra**

Credits: 4

Grading Method: Regular, Pass-Fail, Audit

Prerequisite: 1 course with a minimum grade of C- from (MATH131, MATH141). Credit only granted for: MATH240, MATH341, or MATH461.

Basic concepts of linear algebra: vector spaces, applications to line and plane geometry, linear equations and matrices, similar matrices, linear transformations, eigenvalues, determinants and quadratic forms.

0111	Archana Khurana MWF 12:00pm - 12:50pm TuTh 12:00pm - 12:50pm	Seats (Total: 29) ARM 0126 MTH 0101	Discussion

0112	Archana Khurana MWF 12:00pm - 12:50pm TuTh 12:00pm - 12:50pm	Seats (Total: 29) ARM 0126 MTH B0427	Discussion
0113	Archana Khurana MWF 12:00pm - 12:50pm TuTh 12:00pm - 12:50pm	Seats (Total: 29) ARM 0126 MTH 0201	Discussion
0121	Archana Khurana MWF 12:00pm - 12:50pm TuTh 1:00pm - 1:50pm	Seats (Total: 29) ARM 0126 MTH 0101	Discussion
0122	Archana Khurana MWF 12:00pm - 12:50pm TuTh 1:00pm - 1:50pm	Seats (Total: 29) ARM 0126 MTH B0427	Discussion
0123	Archana Khurana MWF 12:00pm - 12:50pm TuTh 1:00pm - 1:50pm	Seats (Total: 29) ARM 0126 MTH 0201	Discussion
0131	Archana Khurana MWF 12:00pm - 12:50pm TuTh 2:00pm - 2:50pm	Seats (Total: 29) ARM 0126 MTH 0101	Discussion
0132	Archana Khurana MWF 12:00pm - 12:50pm TuTh 2:00pm - 2:50pm	Seats (Total: 29) ARM 0126 MTH B0427	Discussion
0141	Archana Khurana MWF 12:00pm - 12:50pm TuTh 3:00pm - 3:50pm	Seats (Total: 29) ARM 0126 MTH 0101	Discussion
0142	Archana Khurana MWF 12:00pm - 12:50pm TuTh 3:00pm - 3:50pm	Seats (Total: 29) ARM 0126 MTH B0427	Discussion
0211	Allan Yashinski MWF 1:00pm - 1:50pm TuTh 9:00am - 9:50am	Seats (Total: 29) ARM 0126 MTH B0423	Discussion

0212	Allan Yashinski MWF 1:00pm - 1:50pm TuTh 9:00am - 9:50am	Seats (Total: 29) ARM 0126 MTH 0101	Discussion
0213	Allan Yashinski MWF 1:00pm - 1:50pm TuTh 9:00am - 9:50am	Seats (Total: 29) ARM 0126 MTH 0105	Discussion
0221	Allan Yashinski MWF 1:00pm - 1:50pm TuTh 10:00am - 10:50am	Seats (Total: 29) ARM 0126 MTH B0423	Discussion
0222	Allan Yashinski MWF 1:00pm - 1:50pm TuTh 10:00am - 10:50am	Seats (Total: 29) ARM 0126 MTH 0101	Discussion
0223	Allan Yashinski MWF 1:00pm - 1:50pm TuTh 10:00am - 10:50am	Seats (Total: 29) ARM 0126 MTH 0105	Discussion
0231	Allan Yashinski MWF 1:00pm - 1:50pm TuTh 11:00am - 11:50am	Seats (Total: 29) ARM 0126 MTH B0423	Discussion
0232	Allan Yashinski MWF 1:00pm - 1:50pm TuTh 11:00am - 11:50am	Seats (Total: 29) ARM 0126 MTH 0307	Discussion
0241	Allan Yashinski MWF 1:00pm - 1:50pm TuTh 12:00pm - 12:50pm	Seats (Total: 29) ARM 0126 MTH B0423	Discussion
0242	Allan Yashinski MWF 1:00pm - 1:50pm TuTh 12:00pm - 12:50pm	Seats (Total: 29) ARM 0126 MTH 0401	Discussion
0311	Zehua Zhao MWF 12:00pm - 12:50pm W 1:00pm - 1:50pm	Seats (Total: 29) ITV 1100 ITV 1100	Discussion

MATH241 Calculus III

Credits: 4

Grading Method: Regular, Pass-Fail, Audit

Prerequisite: Minimum grade of C- in MATH141. Credit only granted for: MATH241 or MATH340.

Introduction to multivariable calculus, including vectors and vector-valued functions, partial derivatives and applications of partial derivatives (such as tangent planes and Lagrange multipliers), multiple integrals, volume, surface area, and the classical theorems of Green, Stokes and Gauss.

All sections will use MATLAB.

0111	Roohollah Ebrahimian MWF 9:00am - 9:50am TuTh 8:00am - 8:50am	Seats (Total: 26) BRB 1101 MTH B0425	Discussion
0112	Roohollah Ebrahimian MWF 9:00am - 9:50am TuTh 8:00am - 8:50am	Seats (Total: 26) BRB 1101 MTH B0427	Discussion
0121	Roohollah Ebrahimian MWF 9:00am - 9:50am TuTh 9:30am - 10:20am	Seats (Total: 26) BRB 1101 MTH B0425	Discussion
0122	Roohollah Ebrahimian MWF 9:00am - 9:50am TuTh 9:30am - 10:20am	Seats (Total: 26) BRB 1101 MTH B0427	Discussion
0131	Roohollah Ebrahimian MWF 9:00am - 9:50am TuTh 12:30pm - 1:20pm	Seats (Total: 26) BRB 1101 MTH 0104	Discussion
0132	Roohollah Ebrahimian MWF 9:00am - 9:50am TuTh 12:30pm - 1:20pm	Seats (Total: 26) BRB 1101 ITV 1100	Discussion
0141	Roohollah Ebrahimian MWF 9:00am - 9:50am TuTh 2:00pm - 2:50pm	Seats (Total: 26) BRB 1101 MTH 0104	Discussion
0142	Roohollah Ebrahimian MWF 9:00am - 9:50am TuTh 2:00pm - 2:50pm	Seats (Total: 26) BRB 1101 ITV 1100	Discussion

0211	Justin Wyss-Gallifent MWF 12:00pm - 12:50pm TuTh 8:00am - 8:50am	Seats (Total: 27) ARM 0131 ESJ 1215	Discussion
0212	Justin Wyss-Gallifent MWF 12:00pm - 12:50pm TuTh 8:00am - 8:50am	Seats (Total: 27) ARM 0131 ESJ 1215	Discussion
0221	Justin Wyss-Gallifent MWF 12:00pm - 12:50pm TuTh 9:00am - 9:50am	Seats (Total: 27) ARM 0131 ESJ 1215	Discussion
0222	Justin Wyss-Gallifent MWF 12:00pm - 12:50pm TuTh 9:00am - 9:50am	Seats (Total: 27) ARM 0131 ESJ 1215	Discussion
0231	Justin Wyss-Gallifent MWF 12:00pm - 12:50pm TuTh 10:00am - 10:50am	Seats (Total: 27) ARM 0131 ESJ 1215	Discussion
0232	Justin Wyss-Gallifent MWF 12:00pm - 12:50pm TuTh 10:00am - 10:50am	Seats (Total: 27) ARM 0131 ESJ 1215	Discussion
0241	Justin Wyss-Gallifent MWF 12:00pm - 12:50pm TuTh 1:00pm - 1:50pm	Seats (Total: 27) ARM 0131 ESJ 2212	Discussion
0242	Justin Wyss-Gallifent MWF 12:00pm - 12:50pm TuTh 1:00pm - 1:50pm	Seats (Total: 27) ARM 0131 ESJ 2212	Discussion
0311	Wiseley Wong MWF 1:00pm - 1:50pm TuTh 8:00am - 8:50am	Seats (Total: 26) ESJ 0202 MTH 0103	Discussion
0312	Wiseley Wong MWF 1:00pm - 1:50pm TuTh 8:00am - 8:50am	Seats (Total: 26) ESJ 0202 MTH 0306	Discussion

0321	Wiseley Wong MWF 1:00pm - 1:50pm TuTh 9:30am - 10:20am	Seats (Total: 26) ESJ 0202 MTH 0103	Discussion
0322	Wiseley Wong MWF 1:00pm - 1:50pm TuTh 9:30am - 10:20am	Seats (Total: 26) ESJ 0202 MTH 0306	Discussion
0331	Wiseley Wong MWF 1:00pm - 1:50pm TuTh 11:00am - 11:50am	Seats (Total: 26) ESJ 0202 MTH 0103	Discussion
0332	Wiseley Wong MWF 1:00pm - 1:50pm TuTh 11:00am - 11:50am	Seats (Total: 27) ESJ 0202 MTH 0306	Discussion
0341	Wiseley Wong MWF 1:00pm - 1:50pm TuTh 12:30pm - 1:20pm	Seats (Total: 26) ESJ 0202 MTH 0103	Discussion
0342	Wiseley Wong MWF 1:00pm - 1:50pm TuTh 12:30pm - 1:20pm	Seats (Total: 26) ESJ 0202 MTH 0306	Discussion

MATH241H **Calculus III**

Credits: 4 Grading Method: Regular, Pass-Fail, Audit

Prerequisite: Minimum grade of C- in MATH141. Credit only granted for: MATH241 or MATH340.

Introduction to multivariable calculus, including vectors and vector-valued functions, partial derivatives and applications of partial derivatives (such as tangent planes and Lagrange multipliers), multiple integrals, volume, surface area, and the classical theorems of Green, Stokes and Gauss.

For general honors students only. MATH 241H will use MATLAB.

0101	Wiseley Wong MWF 10:00am - 10:50am W 11:00am - 11:50am	Seats (Total: 27) MTH 0307 MTH 0307	

0201	Agnieszka Zelerowicz MWF 2:00pm - 2:50pm M 3:00pm - 3:50pm	Seats (Total: 25) MTH 0403 MTH 0403	

MATH246 **Differential Equations for Scientists and Engineers**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Prerequisite: Minimum grade of C- in MATH141. Credit only granted for: MATH246 or MATH341.

An introduction to the basic methods of solving ordinary differential equations. Equations of first and second order, linear differential equations, Laplace transforms, numerical methods and the qualitative theory of differential equations.

All sections will use MATLAB.

0111	Kendall Williams MWF 10:00am - 10:50am Tu 8:00am - 8:50am	Seats (Total: 27) ARM 0126 MTH 0104	Discussion
0112	Kendall Williams MWF 10:00am - 10:50am Tu 8:00am - 8:50am	Seats (Total: 27) ARM 0126 MTH 1308	Discussion
0113	Kendall Williams MWF 10:00am - 10:50am Tu 8:00am - 8:50am	Seats (Total: 27) ARM 0126 ATL 1109	Discussion
0121	Kendall Williams MWF 10:00am - 10:50am Tu 9:00am - 9:50am	Seats (Total: 27) ARM 0126 MTH 0104	Discussion
0122	Kendall Williams MWF 10:00am - 10:50am Tu 9:00am - 9:50am	Seats (Total: 27) ARM 0126 MTH 1308	Discussion
0123	Kendall Williams MWF 10:00am - 10:50am Tu 9:00am - 9:50am	Seats (Total: 27) ARM 0126 ATL 1109	Discussion

0131	Kendall Williams MWF 10:00am - 10:50am Tu 10:00am - 10:50am	Seats (Total: 27) ARM 0126 MTH 0104	Discussion
0132	Kendall Williams MWF 10:00am - 10:50am Tu 10:00am - 10:50am	Seats (Total: 27) ARM 0126 MTH 1308	Discussion
0141	Kendall Williams MWF 10:00am - 10:50am Tu 11:00am - 11:50am	Seats (Total: 27) ARM 0126 MTH 0104	Discussion
0142	Kendall Williams MWF 10:00am - 10:50am Tu 11:00am - 11:50am	Seats (Total: 27) ARM 0126 MTH 1308	Discussion
0211	David Hamilton MWF 3:00pm - 3:50pm Th 8:00am - 8:50am	Seats (Total: 28) SKN 0200 MTH 0411	Discussion
0221	David Hamilton MWF 3:00pm - 3:50pm Th 9:00am - 9:50am	Seats (Total: 28) SKN 0200 MTH 0411	Discussion
0231	David Hamilton MWF 3:00pm - 3:50pm Th 10:00am - 10:50am	Seats (Total: 28) SKN 0200 MTH 0411	Discussion
0241	David Hamilton MWF 3:00pm - 3:50pm Th 11:00am - 11:50am	Seats (Total: 28) SKN 0200 MTH 0101	Discussion
0311	Terence Long TuTh 9:30am - 10:45am W 8:00am - 8:50am	Seats (Total: 29) ARM 0126 MTH 0303	Discussion
0312	Terence Long TuTh 9:30am - 10:45am W 8:00am - 8:50am	Seats (Total: 29) ARM 0126 MTH 0305	Discussion

0313	Terence Long TuTh 9:30am - 10:45am W 8:00am - 8:50am	Seats (Total: 29) ARM 0126 MTH 0307	Discussion
0321	Terence Long TuTh 9:30am - 10:45am W 9:00am - 9:50am	Seats (Total: 29) ARM 0126 MTH 0303	Discussion
0322	Terence Long TuTh 9:30am - 10:45am W 9:00am - 9:50am	Seats (Total: 29) ARM 0126 MTH 0305	Discussion
0323	Terence Long TuTh 9:30am - 10:45am W 9:00am - 9:50am	Seats (Total: 29) ARM 0126 MTH 0307	Discussion
0331	Terence Long TuTh 9:30am - 10:45am W 10:00am - 10:50am	Seats (Total: 29) ARM 0126 MTH 0303	Discussion
0332	Terence Long TuTh 9:30am - 10:45am W 10:00am - 10:50am	Seats (Total: 29) ARM 0126 MTH 0305	Discussion
0341	Terence Long TuTh 9:30am - 10:45am W 11:00am - 11:50am	Seats (Total: 29) ARM 0126 MTH 0303	Discussion
0342	Terence Long TuTh 9:30am - 10:45am W 11:00am - 11:50am	Seats (Total: 29) ARM 0126 MTH 0305	Discussion

MATH246H **Differential Equations for Scientists and Engineers**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Prerequisite: Minimum grade of C- in MATH141. Credit only granted for: MATH246 or MATH341.

An introduction to the basic methods of solving ordinary differential equations. Equations of first and second order, linear differential equations, Laplace transforms, numerical methods and the qualitative theory of differential equations.

For general honors students only. MATH 246H will use MATLAB.

0101	Xuemiao Chen MWF 2:00pm - 2:50pm	Seats (Total: 22) MTH 0411
0201	Mestiyage Gunatilleka MWF 10:00am - 10:50am	Seats (Total: 22) MTH 1311
0301	Michael Jakobson TuTh 12:30pm - 1:45pm	Seats (Total: 22) MTH 0407

MATH274 **History of Mathematics**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit CORE: IE

Prerequisite: MATH120, MATH130, MATH136, or MATH140; or must have completed MATH220.

An overview of aspects in the history of mathematics from its beginning in the concrete problem solving of ancient times through the development of abstraction in the 19th and 20th centuries. The course considers both mathematical ideas and the context in which they developed in various civilizations around the world.

MATH 274 cannot satisfy a CMSC major requirement.

0101	Kendall Williams MWF 12:00pm - 12:50pm	Seats (Total: 20) MTH 0104

MATH299C **Selected Topics in Mathematics; STIC: Music and Mathematics**

Credits: 1 Grading Method: Regular, Pass-Fail, Audit

Topics of special interest under the general guidance of the departmental committee on undergraduate studies.

0101	Niranjan Ramachandran Th 1:00pm - 1:50pm	Seats (Total: 20) MTH B0423

MATH299F **Selected Topics in Mathematics; STIC: Foundations of Mathematics**

Credits: 1 Grading Method: Regular, Pass-Fail, Audit

Topics of special interest under the general guidance of the departmental committee on undergraduate studies.

0101	Roohollah Ebrahimian	Seats (Total: 20)
	Th 11:00am - 11:50am	MTH 0402

MATH299M **Selected Topics in Mathematics; Visualization through Mathematica**

Credits: 1 Grading Method: Regular, Pass-Fail, Audit

Topics of special interest under the general guidance of the departmental committee on undergraduate studies.

Prerequisites: MATH140 and MATH141 (or equivalent). A comprehensive course on the technical computing language Mathematica, starting with basics including plotting, computation, 3D modeling, and interactive output. The last weeks focus on advanced topics including parallelization, evaluation control, precomputation, and advanced dynamic functionality. The course culminates in personalized final projects on a topic of each student's choice - application vary from physics to finance to nueroscience and more.

0101	Iason Filippou	Seats (Total: 35)
	F 1:00pm - 1:50pm	EGR 3106

MATH299T **Selected Topics in Mathematics; STIC: Poker Theory and Analytics**

Credits: 1 Grading Method: Regular, Pass-Fail, Audit

Topics of special interest under the general guidance of the departmental committee on undergraduate studies.

0101	Wiseley Wong	Seats (Total: 40)
	Th 4:00pm - 4:50pm	ESJ 1215

MATH310 **Introduction to Mathematical Proof**

Credits: 3 Grading Method: Regular, Pass-Fail

Prerequisite: Minimum grade of C- in MATH141; and must have completed or be concurrently enrolled in MATH240, MATH341, or MATH461; and must have completed or be concurrently enrolled in MATH241 or MATH340. Restriction: Must be in a major within the CMNS-Mathematics department. Credit only granted for: MATH307 or MATH310. Additional information: Math majors may not use this course to satisfy an upper-level requirement.

To develop the students' ability to construct a rigorous proof of a mathematical claim. Students will also be made aware of mathematical results that are of interest to those wishing to analyze a particular mathematical model. Topics will be drawn from logic, set theory, structure of the number line, elementary topology, metric spaces, functions, sequences and continuity.

0101	Steve Halperin MWF 9:00am - 9:50am	Seats (Total: 32) MTH 0106
0201	Kathryn Truman MWF 10:00am - 10:50am	Seats (Total: 32) MTH 0106
0301	Nathan Manning MWF 1:00pm - 1:50pm	Seats (Total: 32) MTH 0106
0401	Adam Kanigowski TuTh 9:30am - 10:45am	Seats (Total: 32) MTH 0305

MATH312 **Mathematical Reasoning and Proof for Pre-Service Middle School Teachers**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Prerequisite: MATH212 and MATH213. Restriction: Must be in one of the following programs (Elementary Education; Special Education; Middle School Education).

Reasoning and proof as addressed in the middle school curriculum. Topics include proportional reasoning, logic and proof, types of numbers, field axioms, Euclidean and non-Euclidean geometry.

0101	Sean Gruber MW 3:30pm - 4:45pm	Seats (Total: 25) TWS 1320

MATH314 **Introduction to Probability, Data, Analysis and Statistics for Preservice Middle School Teachers**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Prerequisite: MATH214. Restriction: Must be in one of the following programs (Elementary Education; Special Education; Middle School Education). Credit only granted for: MATH314 or STAT100.

Analysis of bivariate data, probability and randomness, law of large numbers, central limit theorem, probabilities for independent and dependent events, counting techniques, random variables and probability distributions, expected values, sampling distributions, and confidence intervals.

0101	William Viviani MW 2:00pm - 3:15pm	Seats (Total: 25) WDS 0104

MATH341 **Multivariable Calculus, Linear Algebra, Differential Equations II (Honors)**

(Perm req)

Credits: 4 Grading Method: Regular, Pass-Fail, Audit

Prerequisite: Minimum grade of C- in MATH340. Restriction: Open to second semester Freshmen only. Credit only granted for: MATH240, MATH246, MATH341 or MATH461.

A continuation of MATH340.

0101	Roohollah Ebrahimian MWF 11:00am - 12:15pm	Seats (Total: 22) MTH 0405
0201	Brian Smithling MWF 12:00pm - 1:15pm	Seats (Total: 22) MTH 0103

MATH386 **Experiential Learning**

(Perm req)

Credits: 3-6 Grading Method: Regular, Pass-Fail

Prerequisite: Must have learning proposal approved by the CMNS Mathematics Department.

Contact department for information to register for this course.

MATH401 **Applications of Linear Algebra**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Prerequisite: 1 course with a minimum grade of C- from (MATH461, MATH240, MATH341).

Various applications of linear algebra: theory of finite games, linear programming, matrix methods as applied to finite Markov chains, random walk, incidence matrices, graphs and directed graphs, networks and transportation problems.

0101	Allan Yashinski MWF 10:00am - 10:50am	Seats (Total: 33) MTH B0421
0201	Raluca Rosca MWF 1:00pm - 1:50pm	Seats (Total: 33) CHM 1224
0301	Wiseley Wong MWF 3:00pm - 3:50pm	Seats (Total: 33) MTH 0106

0401	Javier Morales Delgado TuTh 12:30pm - 1:45pm	Seats (Total: 33) MTH 0304
0501	Stefan Doboszczak TuTh 2:00pm - 3:15pm	Seats (Total: 33) MTH 0201
0601	Terence Long TuTh 3:30pm - 4:45pm	Seats (Total: 33) MTH B0421

MATH402 **Algebraic Structures**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Prerequisite: 1 course with a minimum grade of C- from (MATH240, MATH341, MATH461). Restriction: Must not be in any of the following programs (Mathematics (Master's); Mathematics (Doctoral)). Credit only granted for: MATH402 or MATH403.

For students having only limited experience with rigorous mathematical proofs. Parallels MATH403. Students planning graduate work in mathematics should take MATH403. Groups, rings, integral domains and fields, detailed study of several groups; properties of integers and polynomials. Emphasis is on the origin of the mathematical ideas studied and the logical structure of the subject.

0101	Christian Zickert TuTh 9:30am - 10:45am	Seats (Total: 20) MTH 1313

MATH403 **Introduction to Abstract Algebra**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Prerequisite: 1 course with a minimum grade of C- from (MATH240, MATH461, MATH340); and 1 course with a minimum grade of C- from (MATH341, MATH241); and minimum grade of C- in MATH310. Or students who have taken courses with comparable content may contact the department. Credit only granted for: MATH402 or MATH403.

Integers; groups, rings, integral domains, fields.

0101	Justin Wyss-Gallifent MWF 10:00am - 10:50am	Seats (Total: 33) MTH 0306
0201	Amin Gholampour MWF 11:00am - 11:50am	Seats (Total: 32) MTH 0306

MATH404 **Field Theory**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Prerequisite: Minimum grade of C- in MATH403.

Algebraic and transcendental elements, Galois theory, constructions with straight-edge and compass, solutions of equations of low degrees, insolubility of the quintic equation, Sylow theorems, fundamental theorem of finite Abelian groups.

0101	Harry Tamvakis TuTh 11:00am - 12:15pm	Seats (Total: 20) CHM 0124

MATH405 **Linear Algebra**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Prerequisite: 1 course with a minimum grade of C- from (MATH240, MATH461, MATH341); and minimum grade of C- in MATH310.

An abstract treatment of finite dimensional vector spaces. Linear transformations and their invariants.

0101	Patrick Brosnan MWF 12:00pm - 12:50pm	Seats (Total: 32) CHM 1224
0201	Allan Yashinski MWF 2:00pm - 2:50pm	Seats (Total: 32) MTH 0103

MATH406 **Introduction to Number Theory**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Prerequisite: 1 course with a minimum grade of C- from (MATH240, MATH241, MATH246, MATH340, MATH341, MATH461); or permission of CMNS-Mathematics department.

Integers, divisibility, prime numbers, unique factorization, congruences, quadratic reciprocity, Diophantine equations and arithmetic functions.

0101	Steven Chadwick MWF 9:00am - 9:50am	Seats (Total: 33) MTH 0306
0201	Justin Wyss-Gallifent MWF 2:00pm - 2:50pm	Seats (Total: 34) MTH 0306

0401	Adam Kanigowski TuTh 11:00am - 12:15pm	Seats (Total: 36) MTH B0421
0501	Jingren Chi TuTh 12:30pm - 1:45pm	Seats (Total: 33) PLS 1111

MATH410 **Advanced Calculus I**

(Perm req)

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Prerequisite: 1 course with a minimum grade of C- from (MATH240, MATH461, MATH341); and 1 course with a minimum grade of C- from (MATH340, MATH241); and minimum grade of C- in MATH310. Or students who have taken courses with comparable content may contact the department.

First semester of a year course. Subjects covered during the year are: sequences and series of numbers, continuity and differentiability of real valued functions of one variable, the Riemann integral, sequences of functions and power series. Functions of several variables including partial derivatives, multiple integrals, line and surface integrals. The implicit function theorem.

0101	Denny Gulick MWF 10:00am - 10:50am	Seats (Total: 34) MTH 0304
0201	Xiumin Du MWF 2:00pm - 2:50pm	Seats (Total: 34) MTH 0304
0301	Kendall Williams MWF 3:00pm - 3:50pm	Seats (Total: 34) MTH 0304
0501	Terence Long TuTh 12:30pm - 1:45pm	Seats (Total: 34) AJC 2132
0601	Stefan Doboszczak MWF 1:00pm - 1:50pm	Seats (Total: 34) MTH 0306

MATH411 **Advanced Calculus II**

(Perm req)

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Prerequisite: Minimum grade of C- in MATH410; and permission of CMNS-Mathematics department. Credit only granted for: MATH411 or MATH412.

Continuation of MATH410.

0101	Leonid Koralov MWF 12:00pm - 12:50pm	Seats (Total: 27) MTH 0307
0301	Matei Machedon TuTh 12:30pm - 1:45pm	Seats (Total: 27) CSI 1122
0401	Giovanni Forni TuTh 12:30pm - 1:45pm	Seats (Total: 27) MTH 0409

MATH416 **Applied Harmonic Analysis: An Introduction to Signal Processing**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Prerequisite: Minimum grade of C- in MATH141; and 1 course with a minimum grade of C- from (MATH240, MATH461, MATH341); and familiarity with MATLAB is required.

Introduces students to the mathematical concepts arising in signal analysis from the applied harmonic analysis point of view. Topics include applied linear algebra, Fourier series, discrete Fourier transform, Fourier transform, Shannon Sampling Theorem, wavelet bases, multiresolution analysis, and discrete wavelet transform.

0101	Charles Levermore MWF 11:00am - 11:50am	Seats (Total: 25) PHY 1219

MATH420 **Mathematical Modeling**

Credits: 3 Grading Method: Regular, Pass-Fail CORE: CS

Prerequisite: 1 course with a minimum grade of C- from (MATH240, MATH461, MATH341); and 1 course with a minimum grade of C- from (MATH241, MATH340); and 1 course with a minimum grade of C- from (MATH246, MATH341); and minimum grade of C- in STAT400. And 1 course with a minimum grade of C- from (CMSC106, CMSC131); or students who have taken courses with comparable content may contact the department. Cross-listed with AMSC420. Credit only granted for: AMSC420 or MATH420.

The course will develop skills in data-driven mathematical modeling through individual and group projects. Emphasis will be placed on both analytical and computational methods, and on effective oral and written presentation of results.

0101	Radu Balan TuTh 11:00am - 12:15pm	Seats (Total: 28) CSI 4122

MATH424 **Introduction to the Mathematics of Finance**

(Perm req)

Credits: 3

Grading Method: Regular, Pass-Fail, Audit

Prerequisite: Minimum grade of C- in MATH141; and 1 course with a minimum grade of C- from (STAT400, STAT410); and permission of CMNS-Mathematics department. Recommended: MATH246, MATH240, MATH241, MATH340, or MATH341. Credit only granted for: BMGT444, MATH424.

Introduction to the mathematical models used in finance and economics with emphasis on pricing derivative instruments. Designed for students in mathematics, computer science, engineering, finance and physics. Financial markets and instruments; elements from basic probability theory; interest rates and present value analysis; normal distribution of stock returns; option pricing; arbitrage pricing theory; the multiperiod binomial model; the Black-Scholes option pricing formula; proof of the Black-Scholes option pricing formula and applications; trading and hedging of options; Delta hedging; utility functions and portfolio theory; elementary stochastic calculus; Ito's Lemma; the Black-Scholes equation and its conversion to the heat equation.

0101	Guangyu Xi	Seats (Total: 25)
	MWF 9:00am - 9:50am	CHM 1224

MATH430 **Euclidean and Non-Euclidean Geometries**

Credits: 3

Grading Method: Regular, Pass-Fail, Audit

Prerequisite: 1 course with a minimum grade of C- from (MATH240, MATH341, MATH461).

Hilbert's axioms for Euclidean geometry. Neutral geometry: the consistency of the hyperbolic parallel postulate and the inconsistency of the elliptic parallel postulate with neutral geometry. Models of hyperbolic geometry. Existence and properties of isometries.

0101	William Goldman	Seats (Total: 33)
	TuTh 11:00am - 12:15pm	SYM 0215

MATH437 **Differential Forms**

Credits: 3

Grading Method: Regular, Pass-Fail, Audit

Prerequisite: 1 course with a minimum grade of C- from (MATH241, MATH340); and 1 course with a minimum grade of C- from (MATH240, MATH341, MATH461). Recommended: MATH405, MATH403, MATH436, MATH410, or MATH432.

Introduction to differential forms and their applications, and unites the fundamental theorems of multivariable calculus in a general Stokes Theorem that is valid in great generality. It develops this theory and technique to perform calculations in analysis and geometry. Topics include an introduction to topological spaces, the Gauss-Bonnet Theorem, Gauss's formula for the linking number, and the Cauchy Integral Theorem. Applications include Maxwell's equations of electromagnetism, connections and gauge theory, and symplectic geometry and Hamiltonian dynamics.

0101	Tamas Darvas TuTh 2:00pm - 3:15pm	Seats (Total: 22) MTH 0303

MATH446 **Axiomatic Set Theory**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Prerequisite: 1 course with a minimum grade of C- from (MATH403, MATH410).

Development of a system of axiomatic set theory, choice principles, induction principles, ordinal arithmetic including discussion of cancellation laws, divisibility, canonical expansions, cardinal arithmetic including connections with the axiom of choice, Hartog's theorem, Konig's theorem, properties of regular, singular and inaccessible cardinals.

0101	Michael Laskowski MWF 12:00pm - 12:50pm	Seats (Total: 22) MTH 0411

MATH456 **Cryptography**

(Perm req)

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Prerequisite: (CMSC106, CMSC131, or ENEE150; or equivalent programming experience); and (2 courses from (CMSC330, CMSC351, ENEE324, or ENEE380); or any one of these courses and a 400-level MATH course, or two 400-level MATH courses). Or permission of instructor. Also offered as: CMSC456, ENEE456. Credit only granted for: MATH456, CMSC456 or ENEE456.

The theory, application, and implementation of mathematical techniques used to secure modern communications. Topics include symmetric and public-key encryption, message integrity, hash functions, block-cipher design and analysis, number theory, and digital signatures.

0101	Nathan Manning MWF 11:00am - 11:50am	Seats (Total: 75) CSI 3117
0201	Gorjan Alagic TuTh 2:00pm - 3:15pm	Seats (Total: 60) IRB 0318

0301	Dana Dachman-Soled MW 2:00pm - 3:15pm	Seats (Total: 60) CSI 3117	

MATH461 **Linear Algebra for Scientists and Engineers**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Prerequisite: Minimum grade of C- in MATH141; and must have completed any MATH or STAT course with a prerequisite of MATH141. Credit only granted for: MATH240, MATH341, or MATH461. Additional information: This course may not be used towards the upper level math requirements for MATH/STAT majors.

Basic concepts of linear algebra. This course is similar to MATH 240, but with more extensive coverage of the topics needed in applied linear algebra: change of basis, complex eigenvalues, diagonalization, the Jordan canonical form.

0111	Jonathan Fernandes TuTh 9:30am - 10:45am F 9:00am - 9:50am	Seats (Total: 27) ARM 0135 MTH B0425	Discussion
0112	Jonathan Fernandes TuTh 9:30am - 10:45am F 9:00am - 9:50am	Seats (Total: 27) ARM 0135 MTH 0401	Discussion
0121	Jonathan Fernandes TuTh 9:30am - 10:45am F 10:00am - 10:50am	Seats (Total: 27) ARM 0135 MTH B0425	Discussion
0122	Jonathan Fernandes TuTh 9:30am - 10:45am F 10:00am - 10:50am	Seats (Total: 27) ARM 0135 MTH 0401	Discussion
0131	Jonathan Fernandes TuTh 9:30am - 10:45am F 11:00am - 11:50am	Seats (Total: 27) ARM 0135 MTH B0425	Discussion
0132	Jonathan Fernandes TuTh 9:30am - 10:45am F 11:00am - 11:50am	Seats (Total: 27) ARM 0135 MTH 0401	Discussion

0211	Samuel Braunfeld TuTh 12:30pm - 1:45pm M 1:00pm - 1:50pm	Seats (Total: 27) ARM 0126 MTH 0101	Discussion
0212	Samuel Braunfeld TuTh 12:30pm - 1:45pm M 1:00pm - 1:50pm	Seats (Total: 27) ARM 0126 ATL 1109	Discussion
0221	Samuel Braunfeld TuTh 12:30pm - 1:45pm M 2:00pm - 2:50pm	Seats (Total: 27) ARM 0126 MTH 0101	Discussion
0222	Samuel Braunfeld TuTh 12:30pm - 1:45pm M 2:00pm - 2:50pm	Seats (Total: 27) ARM 0126 ATL 1109	Discussion
0231	Samuel Braunfeld TuTh 12:30pm - 1:45pm M 3:00pm - 3:50pm	Seats (Total: 27) ARM 0126 MTH 0101	Discussion
0232	Samuel Braunfeld TuTh 12:30pm - 1:45pm M 3:00pm - 3:50pm	Seats (Total: 27) ARM 0126 ATL 1109	Discussion

MATH462 **Partial Differential Equations**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Prerequisite: 1 course with a minimum grade of C- from (MATH241, MATH340); and 1 course with a minimum grade of C- from (MATH246, MATH341).

Linear spaces and operators, orthogonality, Sturm-Liouville problems and eigenfunction expansions for ordinary differential equations. Introduction to partial differential equations, including the heat equation, wave equation and Laplace's equation. Boundary value problems, initial value problems and initial-boundary value problems.

0101	Konstantina Trivisa TuTh 11:00am - 12:15pm	Seats (Total: 33) MTH 0303	

MATH463 **Complex Variables**

Credits: 3

Grading Method: Regular, Pass-Fail, Audit

Prerequisite: 1 course with a minimum grade of C- from (MATH241, MATH340).

The algebra of complex numbers, analytic functions, mapping properties of the elementary functions. Cauchy integral formula. Theory of residues and application to evaluation of integrals. Conformal mapping.

0101	David Hamilton MWF 11:00am - 11:50am	Seats (Total: 22) MTH 0402
0201	Michael Jakobson TuTh 9:30am - 10:45am	Seats (Total: 22) MTH 0307

MATH464 **Transform Methods for Scientists and Engineers**

Credits: 3

Grading Method: Regular, Pass-Fail, Audit

Prerequisite: 1 course with a minimum grade of C- from (MATH246, MATH341).

Fourier transform, Fourier series, discrete fast Fourier transform (DFT and FFT). Laplace transform. Poisson summations, and sampling. Optional Topics: Distributions and operational calculus, PDEs, Wavelet transform, Radon transform and applications such as Imaging, Speech Processing, PDEs of Mathematical Physics, Communications, Inverse Problems.

0101	Tobias von Petersdorff MWF 3:00pm - 3:50pm	Seats (Total: 22) MTH 0105

MATH470 **Mathematics for Secondary Education**

Credits: 3

Grading Method: Regular, Pass-Fail, Audit

Prerequisite: MATH141 and MATH140; and must have completed one 400-level MATH course (not to include MATH461, 478, and 480's).

An advanced perspective on some of the core mathematics underlying high school mathematics courses. Topics include number systems, functions of one variable, equations, inequalities, trigonometric functions, curve fitting, and polynomials. The course includes an analysis of alternate approaches to mathematical ideas and problems, and makes connections between ideas that may have been studied separately in different high school and college courses.

0101	Dana Grosser-Clarkson TuTh 2:00pm - 3:15pm	Seats (Total: 22) PHY 1402

MATH475 **Combinatorics and Graph Theory**

(Perm req)

Credits: 3

Grading Method: Regular, Pass-Fail, Audit

Prerequisite: 1 course with a minimum grade of C- from (MATH240, MATH341, MATH461); and 1 course with a minimum grade of C- from (MATH241, MATH340); and permission of CMNS-Mathematics department. Cross-listed with CMSC475. Credit only granted for: MATH475 or CMSC475.

General enumeration methods, difference equations, generating functions. Elements of graph theory, matrix representations of graphs, applications of graph theory to transport networks, matching theory and graphical algorithms.

0101	Roohollah Ebrahimian	Seats (Total: 25)
	MWF 1:00pm - 1:50pm	MTH 0201

MATH481 **Statistics and Data Analysis for Middle School Teachers**

Credits: 3

Grading Method: Regular, Pass-Fail, Audit

Prerequisite: MATH214. Restriction: Must be a middle school teacher; and permission of CMNS-Mathematics department. Credit only granted for: MATH481 or MATH485. Additional information: Not applicable to MATH/STAT major or minor requirements.

Prepares teachers with elementary certification to teach simple data analysis and probability in middle school. Focuses on understanding basic statistics, data analysis, and related theoretical ideas.

Contact department for information to register for this course.

MATH489 **Research Interactions in Mathematics; Research Interactions in Mathematics**

(Perm req)

Credits: 1-3

Grading Method: Regular, Pass-Fail, Audit

Students participate in a vertically integrated (undergraduate, graduate and/or postdoctoral, faculty) mathematics research group. Format varies. Students and supervising faculty will agree to a contract which must be approved by the department. Up to three credits of MATH489 may be applied to the mathematics degree requirements. See the department's MATH489 online syllabus for further information.

Contact department for information to register for this course.

MATH498A **Selected Topics in Mathematics**

(Perm req)

Credits: 1-9

Grading Method: Regular, Pass-Fail, Audit

Topics of special interest to advanced undergraduate students will be offered occasionally under the general guidance of the departmental committee on undergraduate studies.

Contact department for information to register for this course.

MATH601 **Abstract Algebra II**

Credits: 3 Grading Method: Regular, Audit, Sat-Fail

Prerequisite: MATH600.

Field theory, Galois theory, multilinear algebra. Further topics from: Dedekind domains, Noetherian domains, rings with minimum condition, homological algebra.

Offered Spring only.

0101	James Schafer	Seats (Total: 18)
	TuTh 9:30am - 10:45am	MTH B0431

MATH602 **Homological Algebra**

Credits: 3 Grading Method: Regular, Audit, Sat-Fail

Prerequisite: MATH600.

Projective and injective modules, homological dimensions, derived functors, spectral sequence of a composite functor. Applications.

0101	Patrick Brosnan	Seats (Total: 18)
	MWF 11:00am - 11:50am	MTH B0431

MATH620 **Algebraic Number Theory I**

Credits: 3 Grading Method: Regular, Audit, Sat-Fail

Prerequisite: MATH601.

Algebraic numbers and algebraic integers, algebraic number fields of finite degree, ideals and units, fundamental theorem of algebraic number theory, theory of residue classes, Minkowski's theorem on linear forms, class numbers, Dirichlet's theorem on units, relative algebraic number fields, decomposition group, inertia group and ramification group of prime ideals with respect to a relatively Galois extension.

0101	Niranjan Ramachandran	Seats (Total: 18)
	MWF 10:00am - 10:50am	MTH B0431

MATH631 **Real Analysis II**

Credits: 3 Grading Method: Regular, Audit, Sat-Fail

Prerequisite: MATH630.

Abstract measure and integration theory, metric spaces, Baire category theorem and uniform boundedness principle, Radon-Nikodym theorem, Riesz Representation theorem, Lebesgue decomposition, Banach and Hilbert Spaces, Banach-Steinhaus theorem, topological spaces, Arzela-Ascoli and Stone-Weierstrass theorems, compact sets and Tychonoff's theorem.

Offered Spring only.

0101	Wojciech Czaja TuTh 12:30pm - 1:45pm	Seats (Total: 18) MTH 0102

MATH636 **Representation Theory**

Credits: 3 Grading Method: Regular, Audit, Sat-Fail

Prerequisite: MATH631.

Introduction to representation theory of Lie groups and Lie algebras; initiation into non-abelian harmonic analysis through a detailed study of the most basic examples, such as unitary and orthogonal groups, the Heisenberg group, Euclidean motion groups, the special linear group. Additional topics from the theory of nilpotent Lie groups, semisimple Lie groups, p-adic groups or C-algebras.

0101	Jeffrey Adams MWF 12:00pm - 12:50pm	Seats (Total: 18) MTH 1313

MATH660 **Complex Analysis I**

Credits: 3 Grading Method: Regular, Audit, Sat-Fail

Prerequisite: MATH410; or students who have taken courses with comparable content may contact the department.

Linear transformations, analytic functions, conformal mappings, Cauchy's theorem and applications, power series, partial fractions and factorization, elementary Riemann surfaces, Riemann's mapping theorem.

0101	Harry Tamvakis TuTh 2:00pm - 3:15pm	Seats (Total: 20) MTH 0305

MATH674 **Partial Differential Equations II**

Credits: 3

Grading Method: Regular, Audit, Sat-Fail

Prerequisite: MATH673 or AMSC673; or permission of instructor. Also offered as: AMSC674. Credit only granted for: AMSC674 or MATH674.

Boundary value problems for elliptic partial differential equations via operator-theoretic methods. Hilbert spaces of functions. Duality, weak convergence. Sobolev spaces. Spectral theory of compact operators. Eigenfunction expansions.

Offered Spring only.

0101	Manoussos Grillakis	Seats (Total: 20)
	MWF 10:00am - 10:50am	ITV 1100

MATH689 **Research Interactions in Mathematics**

(Perm req)

Credits: 1-3

Grading Method: Regular, Audit, Sat-Fail

The students participate in a vertically integrated (undergraduate, graduate and/or postdoctoral, faculty) research group. Format varies, but includes regular meetings, readings and presentations of material. See graduate program's online syllabus or contact the graduate program director for more information.

Contact department for information to register for this course.

MATH713 **Mathematical Logic II**

Credits: 3

Grading Method: Regular, Audit, Sat-Fail

Prerequisite: MATH712.

Incompleteness and undecidability results of Godel, Church, Tarski and others. Recursive function. Basic proof theory and axiomatic set theory.

0101	Michael Laskowski	Seats (Total: 18)
	MWF 2:00pm - 2:50pm	MTH 0305

MATH734 **Algebraic Topology**

Credits: 3

Grading Method: Regular, Audit, Sat-Fail

Prerequisite: MATH403; or students who have taken courses with comparable content may contact the department. Recommended: MATH730.

Singular homology and cohomology, cup products, Poincare duality, Eilenberg-Steenrod axioms, Whitehead and Hurewicz theorems, universal coefficient theorem, cellular homology.

0101	William Goldman	Seats (Total: 20)
	TuTh 12:30pm - 1:45pm	MTH 1311

MATH740 **Fundamental Concepts of Differential Geometry**

Credits: 3 Grading Method: Regular, Audit, Sat-Fail

Prerequisite: MATH405, MATH411, and MATH730; or students who have taken courses with comparable content may contact the department.

Manifolds, tangent vectors and differential forms, Riemannian metrics, connections, curvature, structure equations, geodesics, calculus of variations.

0101	Richard Wentworth	Seats (Total: 18)
	TuTh 11:00am - 12:15pm	BPS 1232

MATH799 **Master's Thesis Research**

Credits: 1-6 Grading Method: Sat-Fail

Contact department for information to register for this course.

MATH808A **Selected Topics in Algebra**

Credits: 1-3 Grading Method: Regular, Sat-Fail

Advanced topics of current interest.

Contact department for information to register for this course.

MATH808G **Selected Topics in Algebra; INTRODUCTION TO STACKS**

Credits: 1-3 Grading Method: Regular, Audit, Sat-Fail

Advanced topics of current interest.

0101	Thomas Haines	Seats (Total: 20)
	MWF 1:00pm - 1:50pm	MTH 0304

MATH818A **Selected Topics in Logic**

Credits: 1-3

Grading Method: Regular, Audit, Sat-Fail

Advanced topics of current interest.

Contact department for information to register for this course.

MATH848A **Selected Topics in Geometry and Topology**

Credits: 1-3

Grading Method: Regular, Audit, Sat-Fail

Advanced topics of current interest.

Contact department for information to register for this course.

MATH848I **Selected Topics in Geometry and Topology; Exterior Differential Systems**

Credits: 1-3

Grading Method: Regular, Audit, Sat-Fail

Advanced topics of current interest.

0101	Karin Melnick	Seats (Total: 20)
	TuTh 11:00am - 12:15pm	MTH 1311

MATH848T **Selected Topics in Geometry and Topology; Scissors congruence, spectral sequences, Hilbert's third problem**

Credits: 1-3

Grading Method: Regular, Audit, Sat-Fail

Advanced topics of current interest.

0101	Christian Zickert	Seats (Total: 18)
	TuTh 2:00pm - 3:15pm	MTH B0431

MATH858A **Selected Topics in Analysis**

Credits: 1-3

Grading Method: Regular, Audit, Sat-Fail

Advanced topics of current interest.

Contact department for information to register for this course.

MATH858L **Selected Topics in Analysis; Mathmatical Methods in Machine Learning**

Credits: 1-3

Grading Method: Regular, Audit, Sat-Fail

Advanced topics of current interest.

0101	Dong Dong	Seats (Total: 20)
	MWF 1:00pm - 1:50pm	MTH 0307

MATH858N **Selected Topics in Analysis**

Credits: 1-3 Grading Method: Regular, Audit, Sat-Fail

Advanced topics of current interest.

0101	Patrick Fitzpatrick	Seats (Total: 20)
	TuTh 2:00pm - 3:15pm	MTH 0407

MATH858R **Selected Topics in Analysis; Ramsey Theory and its Applications**

Credits: 3 Grading Method: Regular, Audit, Sat-Fail

Advanced topics of current interest.

0101	William Gasarch	Seats (Total: 35)
	TuTh 3:30pm - 4:45pm	CSI 2107

MATH868A **SelectedTopics in Complex Analysis**

Credits: 1-3 Grading Method: Regular, Audit, Sat-Fail

Advanced topics of current interest.

Contact department for information to register for this course.

MATH898 **Pre-Candidacy Research**

Credits: 1-8 Grading Method: Regular, Sat-Fail

Contact department for information to register for this course.

MATH899 **Doctoral Dissertation Research**

(Perm req)

Credits: 6 Grading Method: Sat-Fail

Contact department for information to register for this course.

MEES Marine-Estuarine-Environmental Sciences Spring 2020

MEES498T **Topics in Marine-Estuarine-Environmental Sciences; Marine and Environmental Biotechnology**

Credits: 3

Grading Method: Regular, Pass-Fail, Audit

Lecture and/or laboratory series organized to study a selected area of marine-estuarine-environmental sciences not otherwise considered in formal courses.

Cross-listed with MEES698T. Credit only granted for MEES498T or MEES698T. Taught at Institute of Marine and Environmental Technology (IMET) and over the Interactive Video Network (IVN).

0101	Jum Sook Chung	Seats (Total: 20)
	MW 9:30am - 10:50am	HJP 1213C
	Contact instructor or department for details.	

MEES608T **Seminar in Marine-Estuarine-Environmental Sciences; Scaling Fisheries: An Early History of Fisheries Science**

Credits: 1

Grading Method: Regular, Audit, Sat-Fail

Taught over the Interactive Video Network (IVN).

0101	Genevieve Nesslage	Seats (Total: 20)
	F 9:00am - 9:50am	HJP 1213C

MEES609A **Professional Development in Marine Estuarine Environmental Science; Applied Environmental Science**

Credits: 2

Grading Method: Regular, Audit, Sat-Fail

Training designed for existing and future careers.

Taught over the interactive Video Network (IVN).

0101	Thomas Miller, Carys Mitchelmore	Seats (Total: 40)
	M 2:00pm - 3:50pm	HJP 1213B

MEES617 **Hydrological Effects of Land Use Change**

Credits: 3

Grading Method: Regular, Audit, Sat-Fail

Prerequisite: Statistics course and hydrology course or permission of instructor.

Detailed examination of the catchment-scale hydrological effects attributable to major land use and land cover alterations, including both anthropic and non-anthropic disturbances.

Taught over the Interactive Video Network (IVN)

0101	Keith Eshleman, Jeremy Testa	Seats (Total: 20)
	TuTh 11:00am - 12:20pm	Location: TBA

MEES618C **Seminars in Marine Estuarine Environmental Sciences; Next Generation Sequence and Analysis**

Credits: 2 Grading Method: Regular, Audit, Sat-Fail

Topics of interest in Marine Estuarine Environmental Sciences

Taught over the Interactive Video Network (IVN).

0101	Tsvetan Bachvaroff	Seats (Total: 20)
	Th 3:00pm - 4:50pm	HJP 1213B

MEES618D **Seminars in Marine Estuarine Environmental Sciences; Ethical Aspects of Environmental Science**

Credits: 1 Grading Method: Regular, Audit, Sat-Fail

Topics of interest in Marine Estuarine Environmental Sciences

Taught over the Interactive Video Network (IVN).

0101	Cynthia Palinkas	Seats (Total: 20)
	M 1:00pm - 1:50pm	HJP 1213B

MEES621 **Biological Oceanography**

Credits: 4 Grading Method: Regular, Audit, Sat-Fail

Population and community ecology of estuarine and marine systems; coastal and estuarine processes are emphasized in the context of oceans in general. Field and lab trips required.

Taught over the Interactive Video Network.

0101	Louis Plough, Judith O'Neil, Raleigh Hood	Seats (Total: 15)
	TuTh 12:30pm - 2:20pm	HJP 1213B

MEES622 **Sustainability Science: quantitative and systems approach**

Credits: 3 Grading Method: Regular, Audit, Sat-Fail

Modern sustainability science goes beyond single-resource management and integrates biophysical and socio-economic considerations of sustainability. This course is designed to help provide students with a historical background, critical thinking approaches, and analytical tools to address sustainability from a scientific perspective.

Taught over the Interactive Video Network (IVN).

0101	Xin Zhang, Eric Davidson	Seats (Total: 20)
	TuTh 12:30pm - 1:50pm	HJP 1213C

MEES631 **Fish Ecology**

Credits: 3 Grading Method: Regular, Sat-Fail

Restriction: Permission of instructor.

Study of the interrelationships between individuals, their communities and environment. Explores the environmental biology of fish, feeding ecology, energetics and growth, population biology, reproduction and life history, and population and community interactions.

Taught over the Interactive Video Network (IVN)

0101	Thomas Miller, David Secor	Seats (Total: 20)
	MW 11:00am - 12:20pm	HJP 1213B

MEES684 **Marine Microbial Ecology**

Credits: 3 Grading Method: Regular, Audit, Sat-Fail

The primary goal of this course is to become familiar with the diversity, ecology, and biogeochemical roles of Bacteria, Archaea, microbial Eukaryotes, viruses, and fungi in the marine environment. The course will also cover the latest discoveries in molecular microbial ecology. Each main topic will begin with a lecture and will be followed by a paper discussion. For the paper discussions, each student will present selected papers specified in the syllabus (or by consensus with the course instructors). Students will also participate in class discussions.

Taught over the Interactive Video Network (IVN).

0101	Feng Chen, Sairah Malkin	Seats (Total: 20)
	TuTh 11:00am - 12:20pm	HJP 1213B

MEES698T **Special Topics in Marine-Estuarine-Environmental Sciences; Marine and Environmental Biotechnology**

Credits: 3

Grading Method: Regular, Audit, Sat-Fail

Credit according to time schedule and course organization. Lecture and/or laboratory series organized to study selected areas of environmental science not otherwise considered by existing courses. May be repeated for credit since topic coverage will change.

Cross-listed with MEES498T. Credit only granted for MEES498T or MEES698T. Taught at Institute of Marine and Environmental Technology (IMET) and over the Interactive Video Network (IVN).

0101	Jum Sook Chung MW 9:30am - 10:50am Contact instructor or department for details.	Seats (Total: 20) HJP 1213C

MEES699 **Special Problems in Marine-Estuarine-Environmental Sciences**

(Perm req)

Credits: 1-3

Grading Method: Regular, Audit, Sat-Fail

Research on specialized topics under the direction of individual faculty members.

Contact department for information to register for this course.

MEES708M **Advanced Topics in Marine-Estuarine-Environmental Science; Environmental Statistic II**

Credits: 3

Grading Method: Regular, Audit, Sat-Fail

Lectures, experimental courses and other specialized graduate training in various relevant disciplines.

Taught over the Interactive Video Network (IVN). This course will extend statistical training of the students to advanced topics of time series analysis and spatial statistics. After taking this course, students will be familiar with a variety of state-of-the-art approaches for qualitative analysis of time- and space-dependent data. Students will become competent users of these methods by practicing them in class and in their homework assignments using the statistical programming language R. This course fills the Professional Development requirement.

0101	Viacheslav Lyubchich, Dong Liang TuTh 9:30am - 10:50am	Seats (Total: 30) HJP 1213B

MEES708T **Advanced Topics in Marine-Estuarine-Environmental Science; Science Visualization**

Credits: 2

Grading Method: Regular, Audit, Sat-Fail

Lectures, experimental courses and other specialized graduate training in various relevant disciplines.

Taught over the Interactive Video Network (IVN) This course fills the Professional Development requirement.

0101	William Dennison	Seats (Total: 20)
	F 10:00am - 11:50am	HJP 1213B

MEES718D **Study Groups on Issues in Marine Estuarine Enviornmental Sciences; Ocean Deoxygenation**

Credits: 2 Grading Method: Regular, Audit, Sat-Fail

Active discussions on current environmental topics and issues. Efforts may result in manuscripts, technical report or innovative communication products.

Taught over the Interactive Video Network (IVN).

0101	Clara Fuchsman	Seats (Total: 20)
	W 1:00pm - 2:50pm	HJP 1213B

MEES718F **Study Groups on Issues in Marine Estuarine Enviornmental Sciences; Shellfish Aquaculture and the Environment**

Credits: 2 Grading Method: Regular, Audit, Sat-Fail

Active discussions on current environmental topics and issues. Efforts may result in manuscripts, technical report or innovative communication products.

Taught of the Interactive Video Network (IVN).

0101	Matthew Gray	Seats (Total: 20)
	F 1:00pm - 2:50pm	HJP 1213B

MEES799 **Masters Thesis Research**

Credits: 1-6 Grading Method: Sat-Fail

Contact department for information to register for this course.

MEES898 **Pre-Candidacy Research**

Credits: 1-8 Grading Method: Regular, Sat-Fail

Contact department for information to register for this course.

MEES899 **Doctoral Dissertation Research**

(Perm req)

Credits: 6 Grading Method: Sat-Fail

Contact department for information to register for this course.

MIEH Maryland Institute for Applied Environmental Health Spring 2020

MIEH300 **A Public Health Perspective: Introduction to Environmental Health**

Credits: 3 Grading Method: Regular, Pass-Fail

Prerequisite: Minimum grade of C- in CHEM131 and CHEM132; and must have completed or be concurrently enrolled in SPHL100 or PHSC300. Restriction: Must have earned a minimum of 60 credits. Credit only granted for: SPHL498N or MIEH300. Formerly: SPHL498N.

Environmental health is that branch of public health that deals with the human health effects of exposure to chemical, physical, and biological agents in the community, workplace, and home. Activities within Environmental Health Sciences are associated with recognizing, assessing, understanding, and mitigating the impacts of chemical, physical, and biological agents as well as understanding how human behavior and action impacts the environment. This course focuses on the central concepts, principles, issues, and applications of the essential scientific components and strategies of control of major environmental health problems.

0101	Kendall Bustad MW 9:00am - 9:50am W 10:00am - 11:50am	Seats (Total: 20) SPH 1312 SPH 0116A	 Discussion
	Restricted to College Park Students in the Public Health Science major (code 12140).		
0102	Kendall Bustad MW 9:00am - 9:50am W 12:00pm - 1:50pm	Seats (Total: 20) SPH 1312 SPH 0116A	 Discussion
	Restricted to College Park students in the Public Health Science major (code: 12140).		
0103	Kendall Bustad MW 9:00am - 9:50am W 2:00pm - 3:50pm	Seats (Total: 20) SPH 1312 SPH 0116A	 Discussion
	Restricted to College Park students in the Public Health Science major (code: 12140).		
0105	Kendall Bustad MW 9:00am - 9:50am F 8:00am - 9:50am	Seats (Total: 20) SPH 1312 SPH 0116A	 Discussion
	Restricted to College Park students in the Public Health Science major (code: 12140).		

0106	Kendall Bustad MW 9:00am - 9:50am F 10:00am - 11:50am	Seats (Total: 20) SPH 1312 SPH 0116A	 Discussion
	Restricted to College Park students in the Public Health Science major (code: 12140).		
0107	Kendall Bustad MW 9:00am - 9:50am F 12:00pm - 1:50pm	Seats (Total: 20) SPH 1312 SPH 0116A	 Discussion
	Restricted to College Park Students in the Public Health Science major (code 12140).		
0108	Kendall Bustad MW 9:00am - 9:50am F 2:00pm - 3:50pm	Seats (Total: 20) SPH 1312 SPH 0116A	 Discussion
	Restricted to College Park Students in the Public Health Science major (code 12140).		

MIEH309 **Environmental Health Research**

(Perm req)

Credits: 1-3 Grading Method: Regular, Pass-Fail

This research-based course will provide undergraduates with the opportunity to work closely with one of the faculty researchers in the Maryland Institute for Applied Environmental Health (MIAEH) within the School of Public Health. Our research covers multiple fields within the environmental health sciences (e.g. environmental epidemiology, exposure science, risk assessment, environmental microbiology, environmental microbial genomics, food toxicology, airborne infection transmission, environmental justice, and children's environmental health) that involve either laboratory-based research or non-laboratory based studies. Students will not only gain invaluable research and interpersonal skills but also contribute to MIAEH's ongoing environmental health research programs.

0201	Paul Turner Contact instructor or department for details.	Seats (Total: 10)
0202	Amir Sapkota Contact instructor or department for details.	Seats (Total: 10)
0203	Amy Sapkota Contact instructor or department for details.	Seats (Total: 10)
0204	Jennifer German, Donald Milton Contact instructor or department for details.	Seats (Total: 40)
0205	Robin Puett Contact instructor or department for details.	Seats (Total: 10)

0206	Sacoby Wilson Contact instructor or department for details.	Seats (Total: 20)
0207	Lesliam Quiros Alcala Contact instructor or department for details.	Seats (Total: 10)
0208	Devon Payne-Sturges Contact instructor or department for details.	Seats (Total: 10)
0209	Muhiuddin Haider Contact instructor or department for details.	Seats (Total: 10)
0210	Elisabeth Maring Contact instructor or department for details.	Seats (Total: 10)
0211	Kristin Cipriani Contact instructor or department for details.	Seats (Total: 5)

MIEH321 **Environmental Determinants of Emerging Infectious Diseases**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Examines the influences of environmental factors, economic development, migration, and land use changes on emergence and reemergence of infectious diseases. Explores how population growth, development, and climate change impact natural reservoirs of infectious diseases and how they are transmitted through human populations. Includes historical accounts, newly emerging and reemerging diseases.

0101	Sara Bazaco Tu 5:00pm - 7:30pm	Seats (Total: 35) SPH 0308

MIEH331 **The Built Environment, Sustainability, and Public Health: The Good, the Bad, and the Ugly**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Prerequisite: Minimum grade of C- in MIEH300; or permission of instructor. Credit only granted for: MIEH215 or MIEH331. Formerly: MIEH215.

Provides students with a fundamental understanding of theory, concepts, and issues related to the built environment; how the built environment influences behaviors and health outcomes; and opportunities to improve the built environment through planning, zoning, and community development initiatives that can make communities healthier, just, and more sustainable.

0101	Rianna Murray	Seats (Total: 10)	
	Class time/details on ELMs	ONLINE	
	Restricted to College Park students in the Public Health Science major.		
ESG1	Rianna Murray	Seats (Total: 25)	
	Class time/details on ELMs	ONLINE	
	Restricted to Shady Grove students in the Public Health Science major.		

MIEH400 **Introduction to Global Health**

Credits: 3 | Grading Method: Regular, Pass-Fail | General Education: DVUP

Prerequisite: Minimum grade of C- in MIEH300; and 1 course with a minimum grade of C- from (SPHL100, PHSC300). Restriction: Must be in the Public Health Science program or must have permission of the program director; and must have completed 60 credits. Credit only granted for: MIEH400 or SPHL498A. Formerly: SPHL498A.

Exploration of theoretical frameworks and practical perspectives on issues shaping the global health panorama. Determinants examined through: biological and epidemiological; social, cultural and economic; environmental and geographic; multi-section, legal and institutional perspectives with synopsis of how these issues are addressed by international and community organizations in developing countries.

0101	Amir Sapkota	Seats (Total: 20)	
	MW 4:00pm - 4:50pm Th 8:00am - 8:50am	ESJ 2208 SPH 0116B	Discussion
	Restricted to College Park Students in the Public Health Science major (code 12140).		
0102	Amir Sapkota	Seats (Total: 20)	
	MW 4:00pm - 4:50pm Th 9:30am - 10:20am	ESJ 2208 SPH 0116B	Discussion
	Restricted to College Park students in the Public Health Science major (code: 12140).		
0103	Amir Sapkota	Seats (Total: 20)	
	MW 4:00pm - 4:50pm Th 11:00am - 11:50am	ESJ 2208 SPH 0116B	Discussion
	Restricted to College Park students in the Public Health Science major (code: 12140).		

0104	Amir Sapkota MW 4:00pm - 4:50pm Th 12:30pm - 1:20pm	Seats (Total: 20) ESJ 2208 SPH 0116B	Discussion
	Restricted to College Park students in the Public Health Science major (code: 12140).		
0105	Amir Sapkota MW 4:00pm - 4:50pm Th 2:00pm - 2:50pm	Seats (Total: 20) ESJ 2208 SPH 0116B	Discussion
	Restricted to College Park students in the Public Health Science major (code: 12140).		
0106	Amir Sapkota MW 4:00pm - 4:50pm Th 3:30pm - 4:20pm	Seats (Total: 20) ESJ 2208 SPH 0116B	Discussion
	Restricted to College Park students in the Public Health Science major (code: 12140).		
ESG1	Negin Fouladi M 2:00pm - 4:30pm	Seats (Total: 35) BLD3 3220	
	Restricted to Shady Grove students in the Public Health Sciences major.		

MIEH609 **Methods in Environmental Health**

Credits: 1-3 Grading Method: Regular, Sat-Fail

This research-based rotation in environmental health sciences will provide graduate students with the opportunity to work closely with faculty researchers in the Maryland Institute for Applied Environmental Health (MIAEH) within the School of Public Health. Our research covers multiple fields within the environmental health sciences (e.g. environmental epidemiology, exposure science, risk assessment, environmental microbiology, environmental microbiology, environmental microbial genomics, food toxicology, airborne infection transmission, environmental justice, and children's environmental health) that involve either laboratory-based research or non-laboratory based studies. Students will not only gain invaluable research experience and interpersonal skills but also contribute to MIAEH's ongoing environmental health research programs.

0201	Paul Turner Contact instructor or department for details.	Seats (Total: 5)
0202	Amir Sapkota Contact instructor or department for details.	Seats (Total: 5)
0203	Amy Sapkota Contact instructor or department for details.	Seats (Total: 5)

0204	Donald Milton Contact instructor or department for details.	Seats (Total: 5)
0205	Robin Puett Contact instructor or department for details.	Seats (Total: 5)
0206	Sacoby Wilson Contact instructor or department for details.	Seats (Total: 5)
0207	Lesliam Quiros Alcala Contact instructor or department for details.	Seats (Total: 5)
0208	Devon Payne-Sturges Contact instructor or department for details.	Seats (Total: 5)

MIEH610 **Global Health Program Planning and Evaluation**

Credits: 3 Grading Method: Regular, Audit, Sat-Fail

Recommended: MIEH605. Credit only granted for: MIEH610, SPHL610 or SPHL698D. Formerly: SPHL698D and SPHL610.

Development of health program and evaluation plans to address critical health problems in international settings, especially transitional or in-conflict countries. Emphasis on linking a tactical program plan to overall health problems of a nation, to include the policy and economic issues involved in assessment, implementation and evaluation.

GH01	Anton Schneider W 5:00pm - 7:30pm Class time/details on ELMs	Seats (Total: 15) ATL 0201 ONLINE

MIEH688 **Seminar in the Maryland Institute for Applied Environmental Health: Current Topics in Environmental Health**

Credits: 1 Grading Method: Sat-Fail

Invited and in-house research presentations from guest scientists, faculty members, and students, and critical analysis of journal articles on current topics in environmental and occupational health.

0101	Donald Milton Tu 11:00am - 12:00pm	Seats (Total: 10) SPH 2234CC

MIEH690 **UMD Global STEWARDS: Experiential Exploration of Innovations at the Nexus of Food, Energy, and Water Systems (INFEWS)**

(Perm req)

Credits: 3

Grading Method: Regular, Audit, Sat-Fail

Restriction: Permission of instructor.

Experiential introduction to broad food, energy, water (FEW) nexus topics, focusing on how integration across the biological, physical, social, behavioral, computer and engineering sciences will be critical in solving FEW systems challenges. FEW nexus issues from molecular to societal levels and from local to global scales will be covered. Course meetings will include active learning-based lectures, field trips, hands-on activities, student-led discussions, guest lectures and case studies focused on domestic and international FEW challenges.

0101	Amy Sapkota	Seats (Total: 15)
	W 9:00am - 11:45am	ESJ B0320

MIEH698D **Special Topics in Environmental Health; Introduction to Systems Science in Population Health**

Credits: 3

Grading Method: Regular, Audit, Sat-Fail

Special topics in environmental health.

Prerequisites: Minimum grade of B- in SPHL602/EPIB610 or permission of instructor. Many public health interventions fall short of their goals because they are developed in piecemeal fashion rather than comprehensively and from a whole-system perspective. Systems science frameworks have been presented as an approach to improve the practice of public health by focusing on component parts of a system in the context of relationships with each other and other systems. The goal of this course is to advance all students' systems science capacity, enabling them to become better consumers of literature and collaborators on interdisciplinary systems science teams. Students will develop their ability to identify and describe the underlying mechanisms of persistent and emerging public health problems such as the opioid epidemic, envrionmental injustices and infectious disease outbreaks using systems frameworks. Instructional methods for this course include lectures, readings, in-class exercises, class participation, oral presentations, and writing assignments. This course will also use AnyLogic (Personal Learning Edition), a free modeling software program, to examine the dynamics of underlying system causal structures and feedbacks.

0101	Devon Payne-Sturges, Sharon Desmond	Seats (Total: 20)
	W 1:00pm - 3:45pm	SPH 0227

MIEH699 **UMD Global STEWARDS: Seminal Findings, and Research and Policy in Progress at the Food, Energy, Water Nexus**

Credits: 1

Grading Method: Sat-Fail, Audit

Engaging discourse covering seminal findings, as well as research and policy in progress at the food, energy, water (FEW) nexus. Course meetings will include dissections of groundbreaking FEW nexus articles; presentations by faculty members and students, followed by interdisciplinary discussions; and presentations by visiting leaders working at the FEW nexus across career sectors.

0101	Amy Sapkota	Seats (Total: 15)
	Th 12:00pm - 1:00pm	SPH 0112

MIEH720 **Principles of Toxicology**

Credits: 3 Grading Method: Regular, Audit, Sat-Fail

Prerequisite: MIEH600; or permission of instructor. Recommended: Must have completed some coursework in chemistry and/or biology.

Overview of toxicology, including exposure pathways, toxicokinetics, dermal toxicants, carcinogens, and genetic, reproductive, immuno-, nuero-, target organs, complex mixtures, structure-activity analysis, and determinants of hypo- and hyper-susceptibility. Case studies of global national and regional interest.

0101	Paul Turner	Seats (Total: 25)
	Th 1:00pm - 3:45pm	SPH 0305

MIEH736 **Antimicrobial Resistance and Me: Understanding the Science and Adapting Behavior to Preserve Human Health**

Credits: 1 Grading Method: Regular, Sat-Fail

Cross-listed with: NFSC736, ENST736.

Improving one's understanding of AMR mechanisms and risks is the first step toward contributing to mitigation of AMR-related risks for human health more broadly. This course is intended to empower participants to identify ways in which AMR impacts their own life, recognize individual behaviors that may contribute to AMR proliferation, and take action to mitigate their contributions to and risks associated with AMR. This course will deliver webinars by educators and researchers throughout the U.S. discussing their AMR-related research and educational activities with emphasis on describing the impacts of work relative to the audience. Participants will be expected to attend live webinar broadcasts and participate in discussion with the speakers and other participants. Students taking the seminar course will also have access to shared resources and forums to further their exploration and engagement with course topics.

Class will meet January 28th through March 5th; and March 31st.

0101	Rohan Tikekar, Stephanie Lansing	Seats (Total: 15)
	Meets January 28, 2020 - March 31, 2020	
	TuTh 10:00am - 10:50am	ANS 1422

MIEH771 **Exposure Assessment of Environmental Hazards**

Credits: 3 Grading Method: Regular, Audit, Sat-Fail

Prerequisite: MIEH600; and must have completed a graduate level statistics course with a B- or higher. Or permission of instructor.

Approaches and methods for determining exposure to environmental contaminants. Biomonitoring and genetic methods to detect recent exposures. Optimizing exposure assessment.

0101	Amir Sapkota	Seats (Total: 25)
	Th 4:00pm - 6:45pm	SPH 0303

MIEH785 **Internship in Public Health**

(Perm req)

Credits: 3 Grading Method: Regular, Audit, Sat-Fail

Restriction: Permission of SPHL-Maryland Institute for Applied Environmental Health. Credit only granted for: MIEH785 or MIEH778.

Internship and seminar providing an opportunity to apply previously acquired knowledge and skills in a health or allied health organization. Setting of the internship will depend upon the student's background and career goals.

0101	Paul Turner	Seats (Total: 5)
	Contact instructor or department for details.	

MIEH786 **Capstone Project in Public Health**

Credits: 3 Grading Method: Regular, Audit, Sat-Fail

Prerequisite: Permission of SPHL-Maryland Institute for Applied Environmental Health.

Capstone experience provding opportunity to apply knowledge and skills to a specific public health problem or issue. Completion of project relevant to public health under the direction of an advisor.

0201	Paul Turner	Seats (Total: 5)
	Contact instructor or department for details.	

0202	Amir Sapkota Contact instructor or department for details.	Seats (Total: 5)
0203	Amy Sapkota Contact instructor or department for details.	Seats (Total: 5)
0204	Donald Milton Contact instructor or department for details.	Seats (Total: 5)
0205	Robin Puett Contact instructor or department for details.	Seats (Total: 5)
0206	Sacoby Wilson Contact instructor or department for details.	Seats (Total: 5)
0207	Lesliam Quiros Alcala Contact instructor or department for details.	Seats (Total: 5)
0208	Devon Payne-Sturges Contact instructor or department for details.	Seats (Total: 5)

MIEH788 **Critical Readings in Environmental Health**

Credits: 1-3 Grading Method: Regular, Audit, Sat-Fail

In-depth examination and critical discussion of the current literature relevant to environmental health.

Contact department for information to register for this course.

MIEH789 **Independent Study**

(Perm req)

Credits: 1-6 Grading Method: Regular, Audit, Sat-Fail

Individual reading and/or research under a specific faculty member in the department.

Contact department for information to register for this course.

MIEH799 **Master's Thesis Research**

(Perm req)

Credits: 1-6 Grading Method: Sat-Fail

Contact department for information to register for this course.

MIEH898 **Pre-Candidacy Research**

(Perm req) Credits: 1-8 Grading Method: Regular, Sat-Fail

Contact department for information to register for this course.

MIEH899 **Doctoral Dissertation Research**

(Perm req) Credits: 1-8 Grading Method: Sat-Fail

Contact department for information to register for this course.

MITH Maryland Institute for Technology in the Humanities Spring 2020

MITH388 **Digital Humanities Research Assistantship**

Credits: 1-3 Grading Method: Regular, Pass-Fail

An applied introduction to the theory and practice of digital research. The internship includes regular meetings with MITH staff, including designers, developers, information professionals, project managers, and faculty, to gain knowledge of existing digital scholarship and resources within the arts and humanities. Students may contribute to existing MITH projects or propose a small, independent research project on which they will receive support from MITH staff.

Cross-listed with ENGL388T. Credit only granted for MITH388 or ENGL388T.

0101	Purdom Lindblad	Seats (Total: 10)
	Contact instructor or department for details.	

MITH610 **Introduction to Digital Studies in the Arts and Humanities**

Credits: 3 Grading Method: Regular, Sat-Fail

An introduction to digital studies in the arts and humanities, broadly conceived as the critical, creative, and practical engagement with digital media, methods, tools, and experiences, as well as the theoretical and conceptual bases for understanding them.

Cross-listed with AMST629U. Credit granted for MITH610 or AMST629U. Digital Studies is an interdisciplinary approach to scholarship and teaching that combines the critical study of new forms of digital media, culture, and identity with creative practices and the applicati onof computational tools to areas of humanistic study. While it is often hands-on or applied, Digital Studies also demands approaches that are primarily critical, theoretical, speculative, or experimental- imaginative-in nature. Broadly speaking then, Digital Studies is a response to the widespread influence of digital media across nearly every aspect of contemporary life; more specifically, it recognizes that teaching, research, and scholarship in the arts and humanities cannot and will not remain isolated from the networks, platforms, and media providers all around us. This course is designed to introduce yo u to several different (and divergent) topics and practices in this diverse, complex, and rapidly changing area.

0101	Jason Farman	Seats (Total: 15)
	Th 4:00pm - 6:40pm	TWS 0134

MITH729 **Colloquium in Digital Studies**

(Perm req)

Credits: 1 Grading Method: Sat-Fail

Colloquium in support of the ARHU-MITH Graduate Certificate in Digital Studies. We will meet periodically (approximately 4-5 times a semester) to read and discuss current work in the field, interact with visiting speakers, share work in progress, learn new tools and methods, and hear research presentations from one another.

Cross-listed with ENGL798D. Credit granted for MITH729 or ENGL798D.Class meets in TWS 3136 on the following dates:2/2, 3/2, 4/6, and 5/4.

0101	Matthew Kirschenbaum	Seats (Total: 20)
	Meets February 10, 2020 - April 28, 2020	
	F 3:00pm - 5:00pm	Location: TBA

MITH741 **Creative Ambiguities: Embodiment, Text, and the Digital Humanities**

Credits: 3 Grading Method: Regular, Audit, Sat-Fail

Prerequisite: MITH610; or permission of instructor. Recommended: MITH610 and MITH735.

The course asks what theoretical and applied research emerges out of the space of digital humanities and the performing arts. It will equip students with a nuanced overview of the history of the digital within performance and explore various technical approaches that can enable the exploration of intersections of research and practice, the connections between creation and research, and yes, even "cool" performance.

0101	Susan Wiesner W 3:00pm - 6:00pm	Seats (Total: 20) HBK 3101	

MLAW MPower Undergraduate Law Programs Spring 2020

MLAW150 **Law in a Just Society**

Credits: 3 | Grading Method: Regular, Pass-Fail | General Education: DSHS, SCIS

Restriction: Must be in the College Park Scholars - Justice and Legal Thought program.

An exploration of the theoretical questions relating to such fundamental questions of jurisprudence as "what is law?" and "how can law be deployed as both an enemy and ally of justice?

0101	David Gray TuTh 11:00am - 11:50am F 10:00am - 10:50am	Seats (Total: 25) SKN 0200 CCC 1200	Discussion
0102	David Gray TuTh 11:00am - 11:50am F 11:00am - 11:50am	Seats (Total: 25) SKN 0200 CCC 1200	Discussion
0103	David Gray TuTh 11:00am - 11:50am F 12:00pm - 12:50pm	Seats (Total: 25) SKN 0200 CCC 1200	Discussion

MLAW304 **Introduction to Law and Social Inquiry**

Credits: 3 | Grading Method: Regular, Pass-Fail, Audit | General Education: DSSP

Restriction: Must be in the Law and Society (MLAW) minor.

An exploration of the relationship between law and society from an interdisciplinary perspective. Major themes cover the impact of law on society, society on law and social change.

Restrictions: Must be in the Law and Society minor. An exploration of the relationship between law and society from an interdisciplinary perspective. Major themes cover the impact of law on society, society on law and social change.

0101	Robert Koulish W 3:00pm - 5:30pm	Seats (Total: 20) TYD 3100	

MLAW305 **Law and Legal Institutions in Social Context**

Credits: 3

Grading Method: Regular, Pass-Fail

Prerequisite: MLAW304. Restriction: Must be a student in the Law and Society Minor.

An exploration of case law, statutes, and regulations separately and together in their social context.

An analysis of the legal institutions of law through a social lens focusing on judicial interpretation, case law, statutes and regulations.

0101	Christine White	Seats (Total: 75)
	TuTh 11:00am - 12:15pm	ASY 1213

MLAW358B **Selected Topics in Law and Society; Dealing with Social Injustice in Flint, Newark and Baltimore: The Impact of Lead Exposure on Kids, Families and Communit**

Credits: 3

Grading Method: Regular, Pass-Fail

An interdisciplinary exploration of topics in law and society. Major scholarly interpretations of specific substantive fields of law.

In thousands of communities across the United States, children are exposed to toxic substances such as lead. Places like Flint, Newark and Baltimore have become infamous in recent years because so many "lead kids" live in each community - a reflection of the impact of lead in the municipal water supply, of leaded paint in older homes, and of contaminated soil left by toxic industries and leaded gasoline. No level of lead exposure is safe: even at extremely low levels, lead can cause a brain injury that affects a child cognitively, behaviorally and physically. In this course, we will examine the many ways that social conditions leave children vulnerable to lead exposure and also deprive children, their families and their communities of access to just responses.

0101	Karen Czapanskiy	Seats (Total: 20)
	TuTh 2:00pm - 3:15pm	KEY 1117

MLAW358J **Selected Topics in Law and Society; Critical Issues in Health Care**

Credits: 3

Grading Method: Regular, Pass-Fail

An interdisciplinary exploration of topics in law and society. Major scholarly interpretations of specific substantive fields of law.

Students will examine the policy, legal and ethical components of a number of critical issues in health care delivery. A variety of teaching techniques, including case studies, reading and discussion of classic literature, role plays, and audiovisual clips will be used to explore such topics as the professional/patient or client relationship, professional discipline by licensing boards, medical malpractice, rights of patients to refuse treatment and demand treatment, ethical issues in human subjects research, informed consent and substituted consent in medical decision making, health care reform and regulation of various aspects of the health care system.

0101	Diane Hoffmann	Seats (Total: 20)
	TuTh 12:30pm - 1:45pm	WDS 0104

MLAW358T **Selected Topics in Law and Society; Tackling Trafficking: The Legal System's Responses to Human Trafficking**

Credits: 3 Grading Method: Regular, Pass-Fail

An interdisciplinary exploration of topics in law and society. Major scholarly interpretations of specific substantive fields of law.

An examination of domestic and international legal responses to the perpetration of the various forms of human trafficking. Students will explore policy initiatives along with civil and criminal law techniques designed to punish traffickers and protect victims.

0101	Christine White	Seats (Total: 20)
	TuTh 12:30pm - 1:45pm	KEY 0121

MLAW358V **Selected Topics in Law and Society; Constitutional Difficulties in the Age of Trump**

Credits: 3 Grading Method: Regular, Pass-Fail

An interdisciplinary exploration of topics in law and society. Major scholarly interpretations of specific substantive fields of law.

0101	Michael Spivey	Seats (Total: 30)
	MW 9:30am - 10:45am	TYD 2106

MLAW358W **Selected Topics in Law and Society; Courts, Law and Justice**

Credits: 3 Grading Method: Regular, Pass-Fail

An interdisciplinary exploration of topics in law and society. Major scholarly interpretations of specific substantive fields of law.

Restriction: Must be enrolled in the Law and Society minor program. Cross-listed with GVPT331. Credit only granted for GVPT331 or MLAW358W.

0101	Michael Spivey MW 1:00pm - 1:50pm F 9:00am - 9:50am	Seats (Total: 25) JMZ 0220 KEY 0121	Discussion
0102	Michael Spivey MW 1:00pm - 1:50pm F 10:00am - 10:50am	Seats (Total: 25) JMZ 0220 KEY 0121	Discussion
0103	Michael Spivey MW 1:00pm - 1:50pm F 1:00pm - 1:50pm	Seats (Total: 25) JMZ 0220 HBK 1108	Discussion
0104	Michael Spivey MW 1:00pm - 1:50pm F 10:00am - 10:50am	Seats (Total: 25) JMZ 0220 ASY 3215	Discussion
0105	Michael Spivey MW 1:00pm - 1:50pm F 1:00pm - 1:50pm	Seats (Total: 25) JMZ 0220 TYD 2108	Discussion
0106	Michael Spivey MW 1:00pm - 1:50pm F 2:00pm - 2:50pm	Seats (Total: 25) JMZ 0220 TYD 2110	Discussion

MLAW358Y **Selected Topics in Law and Society; Civil Rights and the Constitution**

Credits: 3 Grading Method: Regular, Pass-Fail

An interdisciplinary exploration of topics in law and society. Major scholarly interpretations of specific substantive fields of law.

Restriction: Must be enrolled in the Law and Society minor program. Jointly offered with GVPT432. Credit only granted for GVPT432 or MLAW358Y. A study of civil rights in the American consitutional context, emphasizing freedom of religion, freedom of expression, minority discrimination, and the rights of defendants.

0101	Michael Spivey MW 3:00pm - 4:15pm	Seats (Total: 5) TYD 1102	

MLAW358Z **Selected Topics in Law and Society; Police Discretion and the 4th Amendment**

Credits: 3 Grading Method: Regular, Pass-Fail

An interdisciplinary exploration of topics in law and society. Major scholarly interpretations of specific substantive fields of law.

An exploration of the power police officers display when they apply their discretion to stop, question or arrest individuals. Students will dissect State and Federal Court decisions regarding appropriate use of these powers sanctioned by the Fourth Amendment.

0101	Christine White MW 11:00am - 12:15pm	Seats (Total: 20) KEY 0119

MLAW388 **Law and Society Internship**

Credits: 1-4 Grading Method: Regular, Pass-Fail

Participation in the Law and Society Internship (LASI) offers students the opportunity to enhance their education through practical skill building in the realm of law-related professionals.

Restricted to students within the Law and Society minor.

0101	Brandee Pettus Class time/details on ELMs	Seats (Total: 30) ONLINE
0201	Brandee Pettus Class time/details on ELMs	Seats (Total: 6) ONLINE

MLAW404 **Law & Society Capstone: Implications of Technology on Law & Society**

Credits: 3 Grading Method: Regular, Pass-Fail

Restriction: Student must be enrolled in the Law and Society minor.

An exploration of the implications of technology on law and society from a variety of perspectives.Significant issues will be taken from contemporary scholarship and court cases.

0101	William Mundy Tu 3:30pm - 6:00pm	Seats (Total: 75) TYD 2109

MLSC MD Language Science Ctr Spring 2020

MLSC308 **PULSAR Language Science Research Seminar**

(Perm req)

Credits: 1

Grading Method: Regular, Pass-Fail, Audit

Research seminar for students in the PULSAR language science program. Weekly presentations and discussions on diverse topics in language science research, as well as on developing research skills.

Restriction: Must be in PULSAR program or have permission of the instructor. Repeatable to 4 credits. Credit only granted for: BSOS338P or MLSC308. Formerly: BSOS388P.

0101	Tess Wood	Seats (Total: 25)
	Contact instructor or department for details.	

MSML Machine Learning Spring 2020

MSML604 **Introduction to Optimization**

Credits: 3

Grading Method: Regular, Sat-Fail

Prerequisite: undergraduate courses in calculus and basic linear algebra.

The course focuses on recognizing, solving, and analyzing optimization problems. Linear algebra overview: vector spaces and matrices, linear transformations, matrix algebra, projections, similarity transformations, norms, eigen-decomposition and SVD. Convex sets, convex functions, duality theory and optimality conditions. Unconstrained optimization: 1D search, steepest descent, Newton's method, conjugate gradient method, DFP and BFGS methods, stochastic gradient descent. Constrained optimization: projected gradient methods, linear programming, quadratic programming, penalty functions, and interior-point methods. Global search methods: simulated annealing, genetic algorithms, particle swarm optimization.

PCM1	Richard La	Seats (Total: 20)
	Meets February 27, 2020 - May 20, 2020	
	Tu 6:00pm - 9:30pm	CSI 2118
	Must be in Machine Learning Program. For permission to enroll, contact oes@umd.edu.	

MSML605 **Computing Systems for Machine Learning**

Credits: 3

Grading Method: Regular, Sat-Fail

Prerequisite: Undergraduate programming experience. Restriction: Must be in the MPS in Maching Learning program.

Programming, software and hardware design and implementation issues of computing systems for machine learning. Topics in the programming/software domain will include: basic Python program structure, variables and assignment, built-in data types, flow control, functions and modules; basic I/O, and file operations. Classes, object-oriented programming and exceptions. Regular expressions, database access, network programming and sockets. Introduction to the Numpy, Scipy and Matplotlib libraries. Topics in the hardware domain include computer architecture, CPUs, single- and multi-core architectures, GPUs, memory and I/O systems, persistent storage, and virtual memory. Parallel processing architectures, multiprocessing and cluster processing.

Must be in Machine Learning Program. For permission to enroll, contact oes@umd.edu.

Click here for more course information.

PCM1	Mohammad Nayeem Teli **Meets February 27, 2020 - May 20, 2020** Th 6:00pm - 9:30pm	Seats (Total: 15) CSI 3118

MUED Music Education Spring 2020

MUED155 **Fundamentals for the Classroom Teacher**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Restriction: Must be in one of the following programs (Early Childhood Education; Elementary Education) ; or must be a Pre-Elementary Education major; or must be a Pre-Early Childhood Education major.

The fundamentals of music theory and practice, related to the needs of the classroom and the kindergarten teacher.

0101	Bri'Ann Wright M 4:15pm - 6:45pm	Seats (Total: 25) PAC 2168

MUED187 **Pre-Professional Experiences II**

(Perm req)

Credits: 1 Grading Method: Regular, Pass-Fail, Audit

Prerequisite: MUED186. Restriction: Must be in Music Education program.

Regular on-site school visitation at elementary, middle and high school levels arranged to expand student understandings and reflections of music instruction in classroom settings.

0101	Yo-Jung Han F 2:00pm - 2:50pm Contact instructor or department for details.	Seats (Total: 25) PAC 2540

MUED216 **Percussion Technique and Pedagogy**

(Perm req)

Credits: 2 Grading Method: Regular, Pass-Fail, Audit

Restriction: Must be in Music Education program.

Playing experience on percussion instruments. Historical and acoustical background. Scoring for percussion. Principles of improvisation. Basic concepts of teaching. Methods and materials. Techniques of individual and class instruction.

0101	Lee Hinkle MWF 8:00am - 8:50am	Seats (Total: 15) PAC 2540
0201	Daniel Villanueva MWF 8:00am - 8:50am	Seats (Total: 8) PAC 1230

MUED222 **Classroom Instruments Technique and Pedagogy**

(Perm req)

Credits: 2 Grading Method: Regular, Pass-Fail, Audit

Prerequisite: MUED187 and MUED186. Restriction: Must be in Music Education program.

An introduction to the fundamentals of classroom instruments technique and pedagogy for the choral and general teacher.

0101	Yo-Jung Han W 12:00pm - 1:50pm	Seats (Total: 15) PAC 2130A

MUED311 **Teaching Elementary Instrumental Music I**

(Perm req)

Credits: 2 Grading Method: Regular, Pass-Fail, Audit

Prerequisite: MUED187. Restriction: Must be in Music Education program.

Prepare instrumental-emphasis music education majors to synthesize the knowledge and skills that will enable them to teach fundamental musical skills at the elementary level.

0101	Mike Hewitt TuTh 2:00pm - 3:15pm	Seats (Total: 20) PAC 2540

MUED411 **Teaching Elementary Instrumental Music II**

(Perm req)

Credits: 4

Grading Method: Regular, Pass-Fail

Prerequisite: MUED320 and MUED311. Restriction: Must be in Music Education program.

Prepare instrumental-emphasis music education majors to synthesize the knowledge and skills that will enable them to develop and/or maintain an exemplary curricular-oriented, research-based, comprehensive elementary instrumental music program.

0101	Stephanie Prichard	Seats (Total: 15)	
	Tu 9:00am - 10:15am Th 8:00am - 12:00pm	PAC 2130A Location: TBA	Lab

MUED472 **Teaching Choral Music**

(Perm req)

Credits: 4

Grading Method: Regular, Pass-Fail, Audit

General Education: DSSP

Prerequisite: MUED471. Restriction: Must be in Music Education program.

Preparation for teaching choral classes through the integration of conducting technique, vocal pedagogy, knowledge of repertoire, and the application of appropriate instructional strategies in the context of peer teaching and field experience assignments.

0101	Kenneth Elpus	Seats (Total: 15)	
	W 4:00pm - 6:30pm Th 8:00am - 12:00pm	PAC 2130A Location: TBA	Lab

MUED473 **Teaching General Music for Instrumentalists**

(Perm req)

Credits: 2

Grading Method: Regular, Pass-Fail

Prerequisite: MUED311; and MUED320. Restriction: Must be in Music Education program.

Introduction to current trends, materials and approaches in general music instruction.

0101	Yo-Jung Han	Seats (Total: 20)
	Tu 10:20am - 12:00pm	PAC 2130A

MUED474 **Field Experiences: Pre-Student Teaching**

(Perm req)

Credits: 2

Grading Method: Regular, Pass-Fail

Prerequisite: MUED420 and MUED411; or (MUED472 and MUED471). Restriction: Permission of ARHU-School of Music department; and senior standing.

Field experiences to fulfill teaching requirements in K-12 music teacher education program.

0101	Stephanie Prichard	Seats (Total: 15)
	TBA	PAC 2130A

MUED484 **Student Teaching in Elementary School: Music**

(Perm req)

Credits: 6 Grading Method: Sat-Fail

Corequisite: MUED494. Restriction: Permission of ARHU-School of Music department; and must be in Music Education program.

Fulfills elementary teaching requirements in K-12 music teacher education program. Limited to music education majors who have previously applied.

0101	Yo-Jung Han	Seats (Total: 15)
	Contact instructor or department for details.	

MUED494 **Student Teaching in Secondary School: Music**

(Perm req)

Credits: 6 Grading Method: Sat-Fail

Corequisite: MUED484. Restriction: Permission of ARHU-School of Music department; and must be in Music Education program.

Fulfill secondary teaching requirements in K-12 music teacher education program. Limited to music education majors who have previously applied.

Students must pay a $750.00 student teaching fee.

0101	Yo-Jung Han	Seats (Total: 15)
	Contact instructor or department for details.	

MUED692 **Foundations and Perspectives of Music Education**

Credits: 3 Grading Method: Regular, Audit, Sat-Fail

Restriction: Permission of ARHU-School of Music department.

An introduction to historical, sociological, and philosophical perspectives of music education.

0101	Mike Hewitt	Seats (Total: 12)
	Tu 5:00pm - 7:30pm	PAC 2130A

MUED729 **Doctoral Colloquium in Music Education**

(Perm req)

Credits: 1 Grading Method: Sat-Fail, Audit

For students in PhD Progam in Music Education. Meets approximately 4-5 times per semester to read and discuss current work in the field, interact with visiting speakers, share work in progress, learn new tools and methods, and hear research presentations from one another

0101	Stephanie Prichard	Seats (Total: 10)
	TBA	PAC 2130A

MUED780 **Seminar in Music Teacher Education**

Credits: 3 Grading Method: Regular, Sat-Fail

Restriction: Must have doctoral standing in a Music Education program.

Development of knowledge and skills necessary for music teacher educators. Topics include history of and reform movements in music teacher education, recruitment, education and certification of music teachers and inservice programs.

0101	Stephanie Prichard	Seats (Total: 12)
	TBA	PAC 2130A

MUSC School of Music Spring 2020

MUSC001 **MUSP Course Evaluation**

(Perm req)

Credits: 0 Grading Method:

Contact department for information to register for this course.

MUSC099 **Performance Attendance**

Credits: 0 Grading Method: Sat-Fail

Performance attendance laboratory for undergraduate music majors.

0101	Luke Spence	Seats (Total: 150)
	Contact instructor or department for details.	

MUSC102B **Class Piano**

Credits: 2 Grading Method: Regular, Pass-Fail, Audit

Functional piano training for beginners. Development of techniques for school and community playing. Basic piano techniques; chord, arpeggio and scale techniques; melody and song playing; simple accompaniments, improvisation for accompaniments and rhythms; sight reading and transposition and playing by ear.

0101	Natnaree Suwanpotipra TuTh 9:30am - 10:45am	Seats (Total: 14) PAC 1123

MUSC103 **Beginning Class Piano II**

(Perm req)

Credits: 2 Grading Method: Regular, Pass-Fail, Audit

Prerequisite: MUSC102; or permission of ARHU-School of Music department.

Functional piano training for beginners. Development of techniques useful for school and community playing. Basic piano techniques; chord, arpeggio, and scale techniques; melody and song playing; simple accompaniments, improvisation for accompaniments and rhythms; sight reading and transposition, and playing by ear. MUSC 103 is a continuation of MUSC 102; elementary repertoire is begun.

Limited to music majors.

0101	Hui How TuTh 11:00am - 12:15pm	Seats (Total: 14) PAC 1123
0201	Jiawei Yuan MWF 11:00am - 11:50am	Seats (Total: 14) PAC 1123
0301	Hui How TuTh 2:00pm - 3:15pm	Seats (Total: 14) PAC 1123

MUSC106 **Beginning Classical Guitar**

Credits: 2 Grading Method: Regular, Pass-Fail, Audit

Introduction to classical guitar notation, technique, literature and performance. No previous musical experience required.

0101	Gerard Kunkel MW 11:00am - 11:50am	Seats (Total: 12) PAC 1230

MUSC126 **Vocal Diction: English and Latin**

(Perm req)

Credits: 1

Grading Method: Regular, Pass-Fail, Audit

Prerequisite: Permission of ARHU-School of Music department.

Augmentation of private voice study. Phonetics and diction for singers of English and Latin vocal literature.

0101	Diba Alvi	Seats (Total: 15)
	TuTh 11:00am - 11:50am	PAC 3164

MUSC128 **Sight Reading For Pianists**

(Perm req)

Credits: 2

Grading Method: Regular, Pass-Fail, Audit

A course to give the piano major an opportunity to develop proficiency in sight reading at the keyboard.

0101	Natnaree Suwanpotipra	Seats (Total: 10)
	MW 10:00am - 10:50am	PAC 2201

MUSC129A **Ensemble; Chamber Strings**

(Perm req)

Credits: 1

Grading Method: Regular, Pass-Fail

Rehearsal and performance of selected works for small ensembles of instruments, piano, or small vocal groups. After two registrations in MUSC129, the student will elect MUSC229 for two additional semesters and MUSC329 thereafter.

Contact instructor to make arrangements. For Music majors only.

0101	David Salness	Seats (Total: 45)	
	TuTh 11:00am - 12:15pm	PAC 2201	Lab

MUSC129B **Ensemble; Chamber Woodwinds**

(Perm req)

Credits: 1

Grading Method: Regular, Pass-Fail

Rehearsal and performance of selected works for small ensembles of instruments, piano, or small vocal groups. After two registrations in MUSC129, the student will elect MUSC229 for two additional semesters and MUSC329 thereafter.

Contact instructor to make arrangements. For Music majors only.

0101	Mark Hill TuTh 11:00am - 12:15pm	Seats (Total: 40) PAC 2201	Lab
0901	David Le TuTh 11:00am - 12:15pm	Seats (Total: 10) PAC 2201	Lab
1001	Carolyn Braus TuTh 11:00am - 12:15pm	Seats (Total: 10) PAC 2201	Lab
1101	Thomas Wible TuTh 11:00am - 12:15pm	Seats (Total: 10) PAC 2201	Lab
1201	Lydia Consilvio TuTh 11:00am - 12:15pm	Seats (Total: 10) PAC 2201	Lab

MUSC129C **Ensemble; Chamber Brasses**

(Perm req)

Credits: 1 Grading Method: Regular, Pass-Fail, Audit

Rehearsal and performance of selected works for small ensembles of instruments, piano, or small vocal groups. After two registrations in MUSC129, the student will elect MUSC229 for two additional semesters and MUSC329 thereafter.

For Music majors only.

0101	Gregory Miller TuTh 11:00am - 12:15pm	Seats (Total: 30) PAC 2201	Lab
0701	Luke Spence TuTh 11:00am - 12:15pm	Seats (Total: 10) Location: TBA	Lab

MUSC129G **Ensemble; Balinese Gamelan**

Credits: 1 Grading Method: Regular, Pass-Fail

Rehearsal and performance of selected works for small ensembles of instruments, piano, or small vocal groups. After two registrations in MUSC129, the student will elect MUSC229 for two additional semesters and MUSC329 thereafter.

0101	I Suadin Th 7:00pm - 8:30pm	Seats (Total: 20) PAC 1230	Lab

MUSC129K **Ensemble; Japanese Koto**

Credits: 1 Grading Method: Regular, Pass-Fail

Rehearsal and performance of selected works for small ensembles of instruments, piano, or small vocal groups. After two registrations in MUSC129, the student will elect MUSC229 for two additional semesters and MUSC329 thereafter.

0101	Kyoko Okamoto	Seats (Total: 10)	
	Tu 5:30pm - 7:00pm	PAC 3160	Lab

MUSC129L **Ensemble; Advanced Japanese Koto**

(Perm req)

Credits: 1 Grading Method: Regular, Pass-Fail

Rehearsal and performance of selected works for small ensembles of instruments, piano, or small vocal groups. After two registrations in MUSC129, the student will elect MUSC229 for two additional semesters and MUSC329 thereafter.

Prerequisite: Contact instructor to make arrangements.

0101	Kyoko Okamoto	Seats (Total: 4)	
	Tu 7:00pm - 8:30pm	PAC 3160	Lab

MUSC129P **Ensemble; Percussion**

(Perm req)

Credits: 1 Grading Method: Regular, Pass-Fail

Rehearsal and performance of selected works for small ensembles of instruments, piano, or small vocal groups. After two registrations in MUSC129, the student will elect MUSC229 for two additional semesters and MUSC329 thereafter.

0101	Lee Hinkle	Seats (Total: 15)	
	F 3:30pm - 6:00pm	PAC 2540	Lab
	W 5:00pm - 7:00pm	PAC 2540	Lab

MUSC129Q **Ensemble; Korean Percussion Ensemble**

Credits: 1 Grading Method: Regular, Pass-Fail

Rehearsal and performance of selected works for small ensembles of instruments, piano, or small vocal groups. After two registrations in MUSC129, the student will elect MUSC229 for two additional semesters and MUSC329 thereafter.

0101	Sebastian Wang Th 7:00pm - 8:30pm	Seats (Total: 17) PAC 2170	 Lab

MUSC129U **Ensemble; Tuba and Euphonium**

Credits: 1 Grading Method: Regular, Pass-Fail, Audit

Rehearsal and performance of selected works for small ensembles of instruments, piano, or small vocal groups. After two registrations in MUSC129, the student will elect MUSC229 for two additional semesters and MUSC329 thereafter.

0101	Craig Potter Contact instructor or department for details.	Seats (Total: 20)

MUSC130 **Survey of Music Literature**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit CORE: HA General Education: DSHU

Restriction: Must not be in any of the following programs (Music (Professional Program); Music Education).

A study of the principles upon which music is based, and an introduction to the musical repertory performed in America today.

0101	William Robin MW 1:00pm - 1:50pm F 9:00am - 9:50am	Seats (Total: 15) BPS 1250 PAC 3160	 Discussion
0102	William Robin MW 1:00pm - 1:50pm F 10:00am - 10:50am	Seats (Total: 15) BPS 1250 PAC 3160	 Discussion
0103	William Robin MW 1:00pm - 1:50pm F 11:00am - 11:50am	Seats (Total: 15) BPS 1250 PAC 3160	 Discussion
0104	William Robin MW 1:00pm - 1:50pm F 9:00am - 9:50am	Seats (Total: 15) BPS 1250 PAC 3164	 Discussion

0105	William Robin	Seats (Total: 15)	
	MW 1:00pm - 1:50pm F 10:00am - 10:50am	BPS 1250 PAC 3164	Discussion

MUSC130H **Survey of Music Literature**

Credits: 3 | Grading Method: Regular, Pass-Fail, Audit | CORE: HA | General Education: DSHU

Restriction: Must not be in any of the following programs (Music (Professional Program); Music Education).

A study of the principles upon which music is based, and an introduction to the musical repertory performed in America today.

0101	William Robin	Seats (Total: 15)	
	MW 1:00pm - 1:50pm F 11:00am - 11:50am	BPS 1250 PAC 3164	Discussion

MUSC130S **Survey of Music Literature**

Credits: 3 | Grading Method: Regular, Pass-Fail, Audit | CORE: HA | General Education: DSHU

Restriction: Must not be in any of the following programs (Music (Professional Program); Music Education).

A study of the principles upon which music is based, and an introduction to the musical repertory performed in America today.

0101	William Robin	Seats (Total: 10)	
	MW 1:00pm - 1:50pm F 9:00am - 9:50am	BPS 1250 PAC 3160	Discussion

MUSC140 **Music Fundamentals I**

Credits: 3 | Grading Method: Regular, Pass-Fail, Audit | CORE: HA | General Education: DSSP

Restriction: Must not be in any of the following programs (Music (Professional Program); Music Education).

Introductory theory course. Notation, scales, intervals, triads, rhythm, form and basic aural skills.

0101	Alexander Devereux MW 11:00am - 11:50am F 10:00am - 10:50am	Seats (Total: 13) PAC 2168 PAC 1108	 Discussion
0102	Alexander Devereux MW 11:00am - 11:50am F 11:00am - 11:50am	Seats (Total: 12) PAC 2168 PAC 1108	 Discussion
0201	Alexander Devereux MW 12:00pm - 12:50pm F 12:00pm - 12:50pm	Seats (Total: 13) PAC 2168 PAC 1108	 Discussion
0202	Alexander Devereux MW 12:00pm - 12:50pm F 1:00pm - 1:50pm	Seats (Total: 12) PAC 2168 PAC 1108	 Discussion

MUSC151 **Theory of Music II**

(Perm req)

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Prerequisite: Minimum grade of C- in MUSC150.

A continuation of MUSC150, including study of more advanced harmonic techniques of the eighteenth century, such as modulation and chromatic harmonies. Emphasis on sight singing, ear training, analysis and compositional skills.

0101	Richard Layton MWF 8:00am - 8:50am TuTh 8:25am - 9:15am	Seats (Total: 6) PAC 2160 PAC 2160	 Lab
0102	Richard Layton MWF 8:00am - 8:50am TuTh 9:30am - 10:20am	Seats (Total: 6) PAC 2160 PAC 2160	 Lab
0201	Richard Layton MWF 9:00am - 9:50am TuTh 8:25am - 9:15am	Seats (Total: 6) PAC 2160 PAC 2164	 Lab
0202	Richard Layton MWF 9:00am - 9:50am TuTh 8:25am - 9:15am	Seats (Total: 6) PAC 2160 PAC 2168	 Lab

0301	Michael Oberhauser MWF 10:00am - 10:50am TuTh 9:30am - 10:20am	Seats (Total: 6) PAC 2160 PAC 2164	 Lab
0302	Michael Oberhauser MWF 10:00am - 10:50am TuTh 9:30am - 10:20am	Seats (Total: 6) PAC 2160 PAC 2168	 Lab

MUSC203 **Intermediate Class Piano II**

(Perm req)

Credits: 2 Grading Method: Regular, Pass-Fail, Audit

Prerequisite: MUSC202; or must have equivalent piano training.

Advanced keyboard techniques. Continuation of skills introduced in MUSC202. Transposition, modulation and sight reading; methods of teaching functional piano. Development of style in playing accompaniments and in playing for community singing. More advanced repertory.

0101	Jiawei Yuan MWF 9:00am - 9:50am	Seats (Total: 10) PAC 1123	

MUSC205 **History of Popular Music, 1950-Present**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit CORE: HA General Education: DSHU

A historical survey of rock music (blues, rock, soul, metal, rap, etc.) from circa 1950 to the present, with emphasis on popular music as music and popular music as social history.

0101	Richard King MW 12:00pm - 12:50pm F 9:00am - 9:50am	Seats (Total: 23) ARC 0204 PAC 2168	 Discussion
0102	Richard King MW 12:00pm - 12:50pm F 10:00am - 10:50am	Seats (Total: 23) ARC 0204 PAC 2168	 Discussion
0103	Richard King MW 12:00pm - 12:50pm F 11:00am - 11:50am	Seats (Total: 24) ARC 0204 PAC 2168	 Discussion

0104	Richard King MW 12:00pm - 12:50pm F 12:00pm - 12:50pm	Seats (Total: 23) ARC 0204 PAC 2168	Discussion
0105	Richard King MW 12:00pm - 12:50pm F 1:00pm - 1:50pm	Seats (Total: 23) ARC 0204 PAC 2168	Discussion
0106	Richard King MW 12:00pm - 12:50pm F 2:00pm - 2:50pm	Seats (Total: 24) ARC 0204 PAC 2168	Discussion
0107	Richard King MW 12:00pm - 12:50pm F 9:00am - 9:50am	Seats (Total: 23) ARC 0204 PAC 2164	Discussion
0108	Richard King MW 12:00pm - 12:50pm F 10:00am - 10:50am	Seats (Total: 23) ARC 0204 PAC 2164	Discussion
0109	Richard King MW 12:00pm - 12:50pm F 11:00am - 11:50am	Seats (Total: 24) ARC 0204 PAC 2164	Discussion
0110	Richard King MW 12:00pm - 12:50pm F 12:00pm - 12:50pm	Seats (Total: 23) ARC 0204 PAC 2164	Discussion
0111	Richard King MW 12:00pm - 12:50pm F 1:00pm - 1:50pm	Seats (Total: 23) ARC 0204 PAC 2164	Discussion
0112	Richard King MW 12:00pm - 12:50pm F 2:00pm - 2:50pm	Seats (Total: 24) ARC 0204 PAC 2164	Discussion

MUSC210 **The Impact of Music on Life**

Credits: 3 | Grading Method: Regular, Pass-Fail | CORE: HA, D | General Education: DSHU, DVUP

Credit only granted for: MUET210 or MUSC210. Formerly: MUET210.

Music as a part of culture. Materials drawn from traditions throughout the globe to illustrate issues of historical and contemporary significance, including the impact of race, class and gender on the study of music.

0101	Nicole Powlison MW 1:00pm - 1:50pm F 9:00am - 9:50am	Seats (Total: 25) ARC 0204 PAC 3168	Discussion
0102	Nicole Powlison MW 1:00pm - 1:50pm F 10:00am - 10:50am	Seats (Total: 25) ARC 0204 PAC 3168	Discussion
0103	Nicole Powlison MW 1:00pm - 1:50pm F 11:00am - 11:50am	Seats (Total: 25) ARC 0204 PAC 3168	Discussion
0104	Nicole Powlison MW 1:00pm - 1:50pm F 12:00pm - 12:50pm	Seats (Total: 25) ARC 0204 PAC 3168	Discussion
0105	Nicole Powlison MW 1:00pm - 1:50pm F 1:00pm - 1:50pm	Seats (Total: 25) ARC 0204 PAC 3168	Discussion
0106	Nicole Powlison MW 1:00pm - 1:50pm F 2:00pm - 2:50pm	Seats (Total: 25) ARC 0204 PAC 3168	Discussion
0107	Nicole Powlison MW 1:00pm - 1:50pm F 12:00pm - 12:50pm	Seats (Total: 25) ARC 0204 PAC 3164	Discussion
0108	Nicole Powlison MW 1:00pm - 1:50pm F 1:00pm - 1:50pm	Seats (Total: 25) ARC 0204 PAC 3164	Discussion
0109	Nicole Powlison MW 1:00pm - 1:50pm F 2:00pm - 2:50pm	Seats (Total: 25) ARC 0204 PAC 3164	Discussion

0110	Nicole Powlison MW 1:00pm - 1:50pm F 11:00am - 11:50am	Seats (Total: 25) ARC 0204 SQH 1123	Discussion
0111	Nicole Powlison MW 1:00pm - 1:50pm F 12:00pm - 12:50pm	Seats (Total: 25) ARC 0204 SQH 1123	Discussion
0112	Nicole Powlison MW 1:00pm - 1:50pm F 1:00pm - 1:50pm	Seats (Total: 25) ARC 0204 SQH 1123	Discussion

MUSC215 **World Popular Musics and Identity**

Credits: 3	Grading Method: Regular, Pass-Fail, Audit	CORE: HA, D	General Education: DSHU, DVUP

Credit only granted for: MUET200 or MUSC215. Formerly: MUET200.

Focus on popular musics in different cultures with an emphasis on cross-cultural comparisons and analysis of how musics and identity intersect.

0101	Laura Schnitker MW 12:00pm - 12:50pm F 9:00am - 9:50am	Seats (Total: 25) LEF 2205 PAC 1809	Discussion
0102	Laura Schnitker MW 12:00pm - 12:50pm F 10:00am - 10:50am	Seats (Total: 25) LEF 2205 PAC 1809	Discussion
0103	Laura Schnitker MW 12:00pm - 12:50pm F 11:00am - 11:50am	Seats (Total: 25) LEF 2205 PAC 1809	Discussion
0104	Laura Schnitker MW 12:00pm - 12:50pm F 1:00pm - 1:50pm	Seats (Total: 25) LEF 2205 JMP 1202	Discussion
0105	Laura Schnitker MW 12:00pm - 12:50pm F 2:00pm - 2:50pm	Seats (Total: 25) LEF 2205 JMP 1202	Discussion

0106	Laura Schnitker MW 12:00pm - 12:50pm F 3:00pm - 3:50pm	Seats (Total: 25) LEF 2205 JMP 1202	Discussion
0107	Laura Schnitker MW 12:00pm - 12:50pm F 12:00pm - 12:50pm	Seats (Total: 25) LEF 2205 PAC 1809	Discussion
0108	Laura Schnitker MW 12:00pm - 12:50pm F 1:00pm - 1:50pm	Seats (Total: 25) LEF 2205 PAC 1809	Discussion
0109	Laura Schnitker MW 12:00pm - 12:50pm F 2:00pm - 2:50pm	Seats (Total: 25) LEF 2205 PAC 1809	Discussion

MUSC220 **Selected Musical Cultures of the World**

Credits: 3	Grading Method: Regular, Pass-Fail	CORE: HA, D	General Education: DSHU, DVUP

Credit only granted for: MUET220 or MUSC220. Formerly: MUET220.

A survey of selected musical cultures of the world, such as India, Japan, China, Indonesia, West Africa, Eastern Europe and the Near East.

Also offered as ANTH298B. For Spring 2020; credit only granted for MUET220, MUSC220, or ANTH298B.

0101	Siv Lie MW 1:00pm - 1:50pm F 12:00pm - 12:50pm	Seats (Total: 20) ASY 2203 PAC 3160	Discussion
0102	Siv Lie MW 1:00pm - 1:50pm F 1:00pm - 1:50pm	Seats (Total: 20) ASY 2203 PAC 3160	Discussion
0103	Siv Lie MW 1:00pm - 1:50pm F 2:00pm - 2:50pm	Seats (Total: 20) ASY 2203 PAC 3160	Discussion

0104	Siv Lie MW 1:00pm - 1:50pm F 9:00am - 9:50am	Seats (Total: 20) ASY 2203 ARC 1125	 Discussion
0105	Siv Lie MW 1:00pm - 1:50pm F 10:00am - 10:50am	Seats (Total: 20) ASY 2203 ARC 1123	 Discussion
0106	Siv Lie MW 1:00pm - 1:50pm F 11:00am - 11:50am	Seats (Total: 20) ASY 2203 ARC 1123	 Discussion

MUSC226 **Vocal Diction: French**

(Perm req)

Credits: 1 Grading Method: Regular, Pass-Fail, Audit

Prerequisite: Permission of ARHU-School of Music department. Restriction: Must be in a major within ARHU-School of Music department.

Augmentation of private voice study. Phonetics and diction for singers of French vocal literature.

0101	Diba Alvi TuTh 2:00pm - 2:50pm	Seats (Total: 20) PAC 3164	

MUSC229A **Ensemble; Symphony Orchestra**

(Perm req)

Credits: 1 Grading Method: Regular, Pass-Fail

Rehearsal and performance of selected works for small ensembles of instruments, piano, or small vocal groups. After two registrations in MUSC129, the student will elect MUSC229 for two additional semesters and MUSC329 thereafter.

Audition required before permission of department will be granted. Contact instructor to make arrangements.

0101	David Neely TuTh 3:30pm - 6:30pm	Seats (Total: 70) PAC 1230	 Lab

MUSC229D **Ensemble; Wind Orchestra**

(Perm req)

Credits: 1 Grading Method: Regular, Pass-Fail

Rehearsal and performance of selected works for small ensembles of instruments, piano, or small vocal groups. After two registrations in MUSC129, the student will elect MUSC229 for two additional semesters and MUSC329 thereafter.

Open by audition. Contact instructor to make arrangements.

0101	Michael Votta	Seats (Total: 50)	
	TuTh 3:30pm - 6:30pm	PAC 2540	Lab

MUSC229E **Ensemble; Wind Ensemble**

(Perm req)

Credits: 1

Grading Method: Regular, Pass-Fail

Rehearsal and performance of selected works for small ensembles of instruments, piano, or small vocal groups. After two registrations in MUSC129, the student will elect MUSC229 for two additional semesters and MUSC329 thereafter.

Open by audition. Contact instructor to make arrangements.

0101	Andrea Brown	Seats (Total: 75)	
	MWF 11:00am - 12:30pm	PAC 2540	Lab

MUSC229G **Ensemble; Marching Band Repertoire**

Credits: 1

Grading Method: Regular, Pass-Fail, Audit

Rehearsal and performance of selected works for small ensembles of instruments, piano, or small vocal groups. After two registrations in MUSC129, the student will elect MUSC229 for two additional semesters and MUSC329 thereafter.

0101	Andrea Brown	Seats (Total: 60)	
	Th 7:00pm - 10:00pm	PAC 2540	

MUSC229J **Ensemble; Jazz Ensemble**

(Perm req)

Credits: 1

Grading Method: Regular, Pass-Fail

Rehearsal and performance of selected works for small ensembles of instruments, piano, or small vocal groups. After two registrations in MUSC129, the student will elect MUSC229 for two additional semesters and MUSC329 thereafter.

Audition required before permission of department will be granted. Contact instructor to make arrangements.

0101	Tim Powell	Seats (Total: 25)	
	MW 5:30pm - 7:15pm	PAC 1230	Lab
0201	Tim Powell	Seats (Total: 30)	
	MW 1:00pm - 2:15pm	PAC 1230	Lab
0301	Tim Powell	Seats (Total: 35)	
	M 7:30pm - 9:30pm	PAC 1230	Lab

MUSC229K **Ensemble; Marching Band Dance Team**

Credits: 1 Grading Method: Regular, Pass-Fail, Audit

Rehearsal and performance of selected works for small ensembles of instruments, piano, or small vocal groups. After two registrations in MUSC129, the student will elect MUSC229 for two additional semesters and MUSC329 thereafter.

0101	Ann Kennedy	Seats (Total: 30)	
	Su 7:00pm - 9:30pm	Location: TBA	Lab
	TuTh 6:30pm - 9:00pm	Location: TBA	Lab
	F 3:00pm - 5:00pm	Location: TBA	Lab

MUSC229P **Ensemble; Pep Band**

Credits: 1 Grading Method: Regular, Pass-Fail

Rehearsal and performance of selected works for small ensembles of instruments, piano, or small vocal groups. After two registrations in MUSC129, the student will elect MUSC229 for two additional semesters and MUSC329 thereafter.

0101	Andrea Brown	Seats (Total: 165)
	Contact instructor or department for details.	

MUSC229R **Ensemble; Repertoire Orchestra**

(Perm req)

Credits: 1 Grading Method: Regular, Pass-Fail

Rehearsal and performance of selected works for small ensembles of instruments, piano, or small vocal groups. After two registrations in MUSC129, the student will elect MUSC229 for two additional semesters and MUSC329 thereafter.

Audition required before permission of department will be granted. Contact instructor to make arrangements.

0101	Jesse Leong	Seats (Total: 50)	
	MW 3:00pm - 5:00pm	PAC 1230	Lab

MUSC229U **Ensemble; University Band**

Credits: 1 Grading Method: Regular, Pass-Fail

Rehearsal and performance of selected works for small ensembles of instruments, piano, or small vocal groups. After two registrations in MUSC129, the student will elect MUSC229 for two additional semesters and MUSC329 thereafter.

Open by audition. Contact instructor to make arrangements.

0101	Craig Potter	Seats (Total: 150)	
	W 7:30pm - 9:30pm	PAC 2540	Lab

MUSC229Z **Ensemble; Jazz Combo**

(Perm req)

Credits: 1 Grading Method: Regular, Pass-Fail

Rehearsal and performance of selected works for small ensembles of instruments, piano, or small vocal groups. After two registrations in MUSC129, the student will elect MUSC229 for two additional semesters and MUSC329 thereafter.

Audition required before permission of department will be granted. Contact instructor to make arrangements.

0101	Gerard Kunkel	Seats (Total: 5)
	Contact instructor or department for details.	
0201	Thomas Baldwin	Seats (Total: 5)
	Contact instructor or department for details.	
0301	Michael Quinlivan	Seats (Total: 10)
	Contact instructor or department for details.	
0401	Michael Kuhl	Seats (Total: 10)
	Contact instructor or department for details.	

MUSC251 **Advanced Theory of Music II**

(Perm req) Credits: 4 Grading Method: Regular, Pass-Fail, Audit

Prerequisite: Minimum grade of C- in MUSC250.

A continuation of MUSC250, concentrating on late nineteenth-century chromatic harmony and an introduction to twentieth-century melody and harmony. Emphasis on sight singing, ear training, analysis and compositional skills.

0101	Jared Kenlon TuTh 8:00am - 9:15am MW 9:00am - 9:50am	Seats (Total: 6) PAC 3164 PAC 3164	 Lab
0102	Jared Kenlon TuTh 8:00am - 9:15am MW 10:00am - 10:50am	Seats (Total: 6) PAC 3164 PAC 3164	 Lab
0201	Jared Kenlon TuTh 9:30am - 10:45am MW 9:00am - 9:50am	Seats (Total: 6) PAC 3164 PAC 2164	 Lab
0202	Jared Kenlon TuTh 9:30am - 10:45am MW 9:00am - 9:50am	Seats (Total: 6) PAC 3164 PAC 2168	 Lab
0301	Daniel Zimmerman TuTh 2:00pm - 3:15pm MW 10:00am - 10:50am	Seats (Total: 6) PAC 3160 PAC 2164	 Lab
0302	Daniel Zimmerman TuTh 2:00pm - 3:15pm MW 10:00am - 10:50am	Seats (Total: 6) PAC 3160 PAC 2168	 Lab
0401	Dora Hanninen TuTh 9:30am - 10:45am MW 9:00am - 9:50am	Seats (Total: 6) PAC 3160 PAC 3160	 Lab
0402	Dora Hanninen TuTh 9:30am - 10:45am MW 10:00am - 10:50am	Seats (Total: 6) PAC 3160 PAC 3160	 Lab

MUSC269F Special Topics in Study Abroad II; Exploring Music and Society: Flamenco

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Special topics course taken as part of an approved study abroad program.

Contact department for information to register for this course.

MUSC269M **Special Topics in Study Abroad II; Czech Music**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Special topics course taken as part of an approved study abroad program.

Contact department for information to register for this course.

MUSC328 **Introduction to Chamber Music for Pianists**

(Perm req)

Credits: 2 Grading Method: Regular, Pass-Fail, Audit

A course to introduce the piano major to chamber music at a moderately difficult level. Class instruction will center on actual rehearsal and coaching geared toward performance, and will be supplemented by further experience in applied instrumental studios.

0101	Elizabeth Brown	Seats (Total: 10)	
	Contact instructor or department for details.		

MUSC329A **Ensemble; University of Maryland Chorale**

(Perm req)

Credits: 1 Grading Method: Regular, Pass-Fail

Rehearsal and performance of selected works for small ensembles of instruments, piano, or small vocal groups. After two registrations in MUSC129, the student will elect MUSC229 for two additional semesters and MUSC329 thereafter.

Audition required before permission of department will be granted. Contact instructor to make arrangements.

0101	Matthew Goinz	Seats (Total: 80)	
	TuTh 4:30pm - 6:00pm	PAC 2201	Lab

MUSC329B **Ensemble; Chamber Singers**

(Perm req)

Credits: 1 Grading Method: Regular, Pass-Fail

Rehearsal and performance of selected works for small ensembles of instruments, piano, or small vocal groups. After two registrations in MUSC129, the student will elect MUSC229 for two additional semesters and MUSC329 thereafter.

Audition required before permission of department will be granted. Contact instructor to make arrangements.

0101	Edward Maclary	Seats (Total: 50)	
	MW 3:00pm - 3:50pm	PAC 2201	
	TuTh 3:30pm - 4:20pm	PAC 2201	

MUSC329E **Ensemble; Gospel Choir**

Credits: 1 Grading Method: Regular, Pass-Fail

Rehearsal and performance of selected works for small ensembles of instruments, piano, or small vocal groups. After two registrations in MUSC129, the student will elect MUSC229 for two additional semesters and MUSC329 thereafter.

0101	Anne Carswell	Seats (Total: 60)	
	Th 7:00pm - 10:00pm	PAC 2201	Lab

MUSC329M **Ensemble; Men's Chorus**

Credits: 1 Grading Method: Regular, Pass-Fail

Rehearsal and performance of selected works for small ensembles of instruments, piano, or small vocal groups. After two registrations in MUSC129, the student will elect MUSC229 for two additional semesters and MUSC329 thereafter.

0101	Timothy Keeler	Seats (Total: 40)
	MWF 12:00pm - 12:50pm	PAC 1230

MUSC329O **Ensemble; Opera Chorus**

(Perm req)

Credits: 1 Grading Method: Regular, Pass-Fail

Rehearsal and performance of selected works for small ensembles of instruments, piano, or small vocal groups. After two registrations in MUSC129, the student will elect MUSC229 for two additional semesters and MUSC329 thereafter.

0101	Matthew Goinz, Jonathan King F 4:00pm - 6:00pm	Seats (Total: 30) PAC 2170	Lab

MUSC329W **Ensemble; Treble Choir**

Credits: 1 Grading Method: Regular, Pass-Fail

Rehearsal and performance of selected works for small ensembles of instruments, piano, or small vocal groups. After two registrations in MUSC129, the student will elect MUSC229 for two additional semesters and MUSC329 thereafter.

0101	Kenneth Elpus MWF 12:00pm - 12:50pm	Seats (Total: 60) PAC 2201

MUSC360 **Music in Western Culture Before 1900: Music as a Public Art**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Prerequisite: MUSC260. Restriction: Must be in a major within the ARHU-School of Music department. Credit only granted for: MUSC310 or MUSC360.

Course will be looking at roughly 800 years of Western art music in Europe and America (ca.1100-1900) through the lens of selected "moments"--intersections of historical space and time, observing music as an art form practiced in a public eye, both as a social event and a cultural practice.

0101	Barbara Haggh-Huglo MW 2:00pm - 2:50pm F 1:00pm - 1:50pm	Seats (Total: 25) PAC 2200 PAC 2160	Discussion
0102	Barbara Haggh-Huglo MW 2:00pm - 2:50pm F 2:00pm - 2:50pm	Seats (Total: 25) PAC 2200 PAC 2160	Discussion
0103	Barbara Haggh-Huglo MW 2:00pm - 2:50pm F 3:00pm - 3:50pm	Seats (Total: 25) PAC 2200 PAC 2160	Discussion

MUSC369M **Special Topics in Study Abroad III; Masterpieces of Italian Opera**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Special topics course taken as part of an approved study abroad program.

Contact department for information to register for this course.

MUSC379 **Opera Workshop**

(Perm req)

Credits: 1 Grading Method: Regular, Pass-Fail

Open to music and non-music majors (by audition). Operatic production and performance, performance techniques and coaching, stage direction, set design, costume design and make-up. Repertory will include smaller operatic works, excerpts or scenes.

0101	Amanda Consol MW 4:00pm - 6:00pm	Seats (Total: 15) PAC 2170

MUSC386 **Experiential Learning**

(Perm req)

Credits: 6 Grading Method: Regular, Pass-Fail

Prerequisite: Permission of ARHU-School of Music department. Restriction: Junior standing or higher.

Contact department for information to register for this course.

MUSC388 **Music Internship**

(Perm req)

Credits: 3 Grading Method: Regular, Pass-Fail

Pre-professional field work in music.

Prerequisite: permission of instructor.

0101	Lori DeBoy Contact instructor or department for details.	Seats (Total: 5)
0201	Michael Votta Contact instructor or department for details.	Seats (Total: 5)
0301	Edward Maclary Contact instructor or department for details.	Seats (Total: 5)
0401	Instructor: TBA Contact instructor or department for details.	Seats (Total: 5)

MUSC389 **Music Internship Analysis**

(Perm req)

Credits: 1 Grading Method: Regular, Pass-Fail

Documentation and evaluation of field work experience.

0101	Lori DeBoy Contact instructor or department for details.	Seats (Total: 5)
0201	Instructor: TBA Contact instructor or department for details.	Seats (Total: 5)
0301	Edward Maclary Contact instructor or department for details.	Seats (Total: 5)
0401	Instructor: TBA Contact instructor or department for details.	Seats (Total: 5)

MUSC400S **Music Pedagogy**

(Perm req)

Credits: 3

Grading Method: Regular, Pass-Fail

Prerequisite: MUSP315; and permission of ARHU-School of Music department.

Conference course. A study of major pedagogical treatises in music, and an evaluation of pedagogical techniques, materials, and procedures.

Contact department for information to register for this course.

MUSC400V **Music Pedagogy**

(Perm req)

Credits: 3

Grading Method: Regular, Pass-Fail, Audit

Prerequisite: MUSP315; and permission of ARHU-School of Music department.

Conference course. A study of major pedagogical treatises in music, and an evaluation of pedagogical techniques, materials, and procedures.

0101	Diba Alvi TuTh 9:30am - 10:45am	Seats (Total: 25) PAC 2201

MUSC436 **Jazz: Then and Now**

Credits: 3

Grading Method: Regular, Pass-Fail, Audit

Major styles and influential artists of the past 75 years of jazz.

0101	John Witzleben	Seats (Total: 20)
	MW 4:15pm - 5:30pm	PAC 3160

MUSC438S **Area Studies in Ethnomusicology; MUSIC OF SOUTHEAST ASIA**

Credits: 3 Grading Method: Regular, Pass-Fail

Advanced study of musics in selected parts of the world.

0101	John Witzleben	Seats (Total: 12)
	TuTh 2:00pm - 3:15pm	PAC 3110A

MUSC444 **Wind and Percussion Literature**

(Perm req)

Credits: 1 Grading Method: Regular, Pass-Fail, Audit

Prerequisite: Permission of ARHU-School of Music department. Corequisite: MUSP420 or MUSP419.

Recital program notes and written projects in wind or percussion literature.

Contact department for information to register for this course.

MUSC446 **String Literature**

(Perm req)

Credits: 1 Grading Method: Regular, Pass-Fail, Audit

Prerequisite: MUSP316; and permission of ARHU-School of Music department.

Recital program notes and written projects in string literature.

Contact department for information to register for this course.

MUSC448 **Selected Topics in Music**

(Perm req)

Credits: 1-3 Grading Method: Regular, Pass-Fail, Audit

Contact department for information to register for this course.

MUSC448A **Selected Topics in Music; Accompanying Practicum**

(Perm req)

Credits: 1-3 Grading Method: Regular, Pass-Fail, Audit

0101	Mayron Tsong	Seats (Total: 10)
	Contact instructor or department for details.	

MUSC448C **Selected Topics in Music; Advanced Analytical Techniques II**

(Perm req)

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

0101	David Froom M 5:30pm - 8:00pm	Seats (Total: 8) PAC 2164

MUSC448E **Financial Entrepreneurship for Arts Leaders**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit General Education: DSSP

Cross-listed with: ARHU340. Credit only granted for: ARHU340 or MUSC448E.

An introduction to financial entrepreneurship for the arts leader in order to prepare students for diverse and ever-changing careers in the arts and creative fields. Topics explored will include Professional Paperwork (resumes, cover letters, biographies, job searches), Financial Literacy (taxes, budgets, boards, tickets sales, musicians unions), Marketing (website development, social media, press packets, record labels vs. online distribution, headshots, audience development, community engagement, branded content), Communication (public speaking, writing), and Technology (online tools, computer software, peripherals, recording, photography/videography, on campus resources).

0101	Lee Hinkle TuTh 9:30am - 10:45am	Seats (Total: 24) PAC 2200

MUSC448F **Selected Topics in Music; Style Analysis**

(Perm req)

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

0101	Robert Gibson TuTh 2:00pm - 3:15pm	Seats (Total: 15) PAC 2164

MUSC448G **Selected Topics in Music; History of the Mass**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

0101	Barbara Haggh-Huglo M 6:30pm - 9:00pm	Seats (Total: 12) PAC 3110A

MUSC448W **Selected Topics in Music; Instrumental Pedagogy**

(Perm req)

Credits: 1

Grading Method: Regular, Pass-Fail, Audit

Contact department for information to register for this course.

MUSC450 **Musical Form**

(Perm req)

Credits: 3

Grading Method: Regular, Pass-Fail, Audit

Prerequisite: MUSC251.

A study of the principles of organization in music with emphasis on eighteenth and nineteenth century European music. Reading and analysis of scores exemplifying the musical forms.

0101	Michael Oberhauser	Seats (Total: 25)
	TuTh 2:00pm - 3:15pm	PAC 2168

MUSC454 **Jazz Improvisation II**

(Perm req)

Credits: 3

Grading Method: Regular, Pass-Fail, Audit

Prerequisite: MUSC453; or students who have taken courses with comparable content may contact the department. And permission of ARHU-School of Music department. Credit only granted for: MUSC346 or MUSC454. Formerly: MUSC346.

Continuation of MUSC453 including scoring and transcription.

0101	Gerard Kunkel	Seats (Total: 5)
	Th 12:30pm - 3:00pm	PAC 1208

MUSC456 **Jazz Arranging**

(Perm req)

Credits: 3

Grading Method: Regular, Pass-Fail, Audit

Prerequisite: MUSC455; and permission of ARHU-School of Music department. Credit only granted for: MUSC448N or MUSC456. Formerly: MUSC448N.

A comprehensive approach to jazz arranging. Topics to include chord scale theory, voicing techniques, part and score layout, and formal construction of an arrangement.

0101	Tim Powell	Seats (Total: 12)
	TuTh 3:30pm - 4:45pm	PAC 2168

MUSC461 **Theory and Analysis of Atonal and Twelve-tone Music**

(Perm req)

Credits: 3

Grading Method: Regular, Pass-Fail, Audit

Prerequisite: MUSC251 and MUSC450; and permission of ARHU-School of Music department. Restriction: Must be in Music Theory and Composition program. Jointly offered with MUSC661. Credit only granted for: MUSC46 1 or MUSC661.

An advanced technical introduction to theory and analysis of atonal and twelve-tone music, with an emphasis on music by Schoenberg, Webern, Bartok, and Stravinsky.

0101	Dora Hanninen	Seats (Total: 12)
	TuTh 11:00am - 12:15pm	PAC 3160

MUSC463 **Technology and a Career in Music**

(Perm req)

Credits: 3

Grading Method: Regular, Pass-Fail, Audit

Recommended: Ability to read music on a grand staff (treble and bass clef). Additional information: No previous experience with technology is required.

A hands-on introduction to technology as it applies to music creation and recording. Digital audio workstations, music notation software, and cloud-based music technology are used to create and manipulate musical examples with an eye toward their practical applications for professional musicians.

0101	Jared Kenlon	Seats (Total: 18)
	Th 1:00pm - 3:30pm	PAC 1108

MUSC469F **Orchestral Excerpts for String Players; Bass**

(Perm req)

Credits: 1

Grading Method: Regular, Pass-Fail, Audit

In-depth study of the orchestral excerpts required for professional orchestra auditions.

0101	Richard Barber	Seats (Total: 15)
	M 6:00pm - 7:15pm	Location: TBA

MUSC469V **Orchestral Excerpts for String Players; HARP**

(Perm req)

Credits: 1

Grading Method: Regular, Pass-Fail, Audit

In-depth study of the orchestral excerpts required for professional orchestra auditions.

0101	Sarah Fuller	Seats (Total: 15)
	Contact instructor or department for details.	

MUSC470 **Harmonic and Contrapuntal Practices of the Twentieth Century**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Prerequisite: MUSC251; or students who have taken courses with comparable content may contact the department. And permission of ARHU-School of Music department.

A theoretical and analytical study of twentieth century materials.

0101	Mark Wilson TuTh 2:00pm - 3:15pm	Seats (Total: 15) PAC 3168

MUSC486 **Orchestration I**

(Perm req)

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Prerequisite: MUSC251; and permission of ARHU-School of Music department.

A study of the ranges, musical functions and technical characteristics of the instruments and their color possibilities in various combinations. Practical experience in orchestrating for small and large ensembles.

0101	Mark Wilson TuTh 11:00am - 12:15pm	Seats (Total: 5) PAC 2168

MUSC490 **Conducting**

(Perm req)

Credits: 2 Grading Method: Regular, Pass-Fail

Prerequisite: MUSC251.

Vocal and instrumental baton techniques.

0101	Minji Kim MWF 11:00am - 11:50am	Seats (Total: 12) PAC 2201
0201	Andrea Brown MWF 1:00pm - 1:50pm	Seats (Total: 12) PAC 2201

MUSC491 **Conducting II**

(Perm req)

Credits: 2 Grading Method: Regular, Pass-Fail, Audit

Prerequisite: MUSC490; or students who have taken courses with comparable content may contact the department.

Baton techniques applied to score reading, rehearsal techniques, tone production, style and interpretation.

Concurrent registration in MUED472.

0101	Joseph Scott MW 9:00am - 9:50am	Seats (Total: 20) PAC 2540
0201	Kathryn Hylton MW 9:00am - 9:50am	Seats (Total: 20) PAC 2201

MUSC493 **Keyboard Music II**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Prerequisite: MUSC492; and permission of ARHU-School of Music department.

The history and literature of harpsichord and solo piano music from the Romantic period to the present. Emphasis is placed on those segments of repertory which are encountered in performance and teaching situations at the present time.

0101	Mayron Tsong MW 11:00am - 12:15pm	Seats (Total: 15) PAC 3168

MUSC499 **Independent Studies**

(Perm req)

Credits: 1-3 Grading Method: Regular, Pass-Fail, Audit

Independent research on a topic chosen in consultation with the instructor, which may culminate in a paper or appropriate project.

Contact department for information to register for this course.

MUSC602 **Advanced Italian Lyric Diction**

(Perm req)

Credits: 1 Grading Method: Regular, Audit, Sat-Fail

Restriction: Must be in one of the following programs (Music - Doctoral (Doctoral); Music - Master (Master's)) . And permission of instructor; or admission to graduate voice program.

Concepts, strategies and techniques for singing operatic and song literature in Italian: syllabification, vowels, stressed and unstressed syllables, dipthongs, glides and elisions, single and double consonants with emphasis on current performance practices.

0101	Kevin Short	Seats (Total: 15)
	Tu 10:30am - 12:00pm	PAC 1218

MUSC603 **Advanced German Lyric Diction**

(Perm req)

Credits: 1 Grading Method: Regular, Audit, Sat-Fail

Restriction: Must be in one of the following programs (Music - Doctoral (Doctoral); Music - Master (Master's)) . And permission of instructor; or admission to graduate voice program.

Concepts, strategies and techniques for singing operatic and song literature in German: single and double consonants, the use of the glottal, the German closed (e) and (o) vowels, the "schwa" and consonant clusters. Mastery of the International Phonetic Alphabet (IPA) as it applies to "Hochdeutsch" will be expected.

0101	Delores Ziegler	Seats (Total: 15)
	Tu 10:30am - 12:00pm	PAC 2170

MUSC606 **Opera Repertory II**

(Perm req)

Credits: 1 Grading Method: Regular, Audit, Sat-Fail

Prerequisite: MUSC605; or permission of instructor. Restriction: Must be in one of the following programs (Music - Doctoral (Doctoral); Music - Master (Master's)).

Continuation of MUSC 605. Advanced vocal coaching of selections from the Italian, French, German and English opera repertory: musical accuracy, language facility; diction clarity; and dramatic interpretation.

0101	Carmen Balthrop	Seats (Total: 10)	
	Th 10:30am - 12:00pm	TWS 1121	Lab

MUSC608 **Chamber Music Repertory; Chamber Music Repertoire**

(Perm req)

Credits: 1-3 Grading Method: Regular, Audit, Sat-Fail

Prerequisite: graduate standing as a major in performance. A study, through performance, of diversified chamber music for standard media.

Contact department for information to register for this course.

MUSC609 **Piano Chamber Music Practicum and Analysis**

(Perm req)

Credits: 2

Grading Method: Regular, Sat-Fail

Study of repertoire written for piano in duos or with several instruments, to develop an accompanists advanced performance skills in listening, balance, nuance in dynamics, harmonic motion and phrasing.

0101	Audrey Andrist	Seats (Total: 10)	
	Contact instructor or department for details.		

MUSC612 **Opera Techniques II**

(Perm req)

Credits: 2

Grading Method: Regular, Audit, Sat-Fail

Prerequisite: Minimum grade of B- in MUSC611. Corequisite: MUSC602. Restriction: Must be in one of the following programs (Music - Doctoral (Doctoral); Music - Master (Master's)) ; and permission of Director of Opera required.

Continuation of MUSC 611. Techniques for opera performance: Scene Study II; Movement II; and Mask.

0101	Craig Kier	Seats (Total: 20)	
	TBA	PAC 2170	
	TBA	PAC 1218	Lab

MUSC614 **Opera Techniques IV**

(Perm req)

Credits: 2

Grading Method: Regular, Audit, Sat-Fail

Prerequisite: Minimum grade of B- in MUSC613. Corequisite: MUSC606 and MUSC604. Restriction: Must be in one of the following programs (Music - Doctoral (Doctoral); Music - Master (Master's)) ; and permission of Director of Opera required.

Continuation of MUSC 613. Techniques for opera performance: Scene Study IV and Movement IV.

0101	Craig Kier	Seats (Total: 20)	
	TBA	PAC 2170	
	TBA	PAC 1218	Lab

MUSC629A **Ensemble; Symphony Orchestra**

(Perm req)

Credits: 1

Grading Method: Regular, Sat-Fail

Rehearsal and performance of selected works for small and large instrumental ensembles.

Audition required before permission of department will be granted. Contact instructor to make arrangements.

0101	David Neely	Seats (Total: 50)	
	TuTh 3:30pm - 6:30pm	PAC 1230	Lab

MUSC629C **Ensemble; Wind Ensemble**

Credits: 1 Grading Method: Regular, Sat-Fail

Rehearsal and performance of selected works for small and large instrumental ensembles.

0101	Michael Votta	Seats (Total: 20)	
	MWF 11:00am - 12:30pm	PAC 2540	Lab

MUSC629G **Ensemble; Balinese Gamelan**

(Perm req)

Credits: 1 Grading Method: Regular, Sat-Fail

Rehearsal and performance of selected works for small and large instrumental ensembles.

0101	I Suadin	Seats (Total: 5)	
	Th 7:00pm - 8:30pm	PAC 1230	Lab

MUSC629J **Ensemble; Jazz Ensemble**

(Perm req)

Credits: 1 Grading Method: Regular, Sat-Fail

Rehearsal and performance of selected works for small and large instrumental ensembles.

Audition required before permission of department will be granted. Contact instructor to make arrangements.

0101	Tim Powell	Seats (Total: 20)	
	MW 5:30pm - 7:15pm	PAC 1230	Lab
0201	Tim Powell	Seats (Total: 5)	
	MW 1:00pm - 2:15pm	PAC 1230	Lab

0301	Tim Powell	Seats (Total: 10)	
	M 7:30pm - 9:30pm	PAC 1230	Lab

MUSC629K **Ensemble; Japanese Koto**

(Perm req)

Credits: 1 Grading Method: Regular, Sat-Fail

Rehearsal and performance of selected works for small and large instrumental ensembles.

0101	Kyoko Okamoto	Seats (Total: 2)	
	Tu 5:30pm - 7:00pm	PAC 3160	Lab

MUSC629L **Ensemble; Advanced Japanese Koto**

(Perm req)

Credits: 1 Grading Method: Regular, Sat-Fail

Rehearsal and performance of selected works for small and large instrumental ensembles.

Prerequisite: Contact instructor to make arrangements.

0101	Kyoko Okamoto	Seats (Total: 4)	
	Tu 7:00pm - 8:30pm	PAC 3160	Lab

MUSC629O **Ensemble; Tuba and Euphonium**

Credits: 1 Grading Method: Regular, Sat-Fail

Rehearsal and performance of selected works for small and large instrumental ensembles.

0101	Craig Potter	Seats (Total: 5)
	Contact instructor or department for details.	

MUSC629P **Ensemble; Percussion Ensemble**

Credits: 1 Grading Method: Regular, Sat-Fail

Rehearsal and performance of selected works for small and large instrumental ensembles.

0101	Lee Hinkle	Seats (Total: 15)	
	F 3:30pm - 6:00pm	PAC 2540	Lab
	W 5:00pm - 7:00pm	PAC 2540	Lab

0301	Lee Hinkle	Seats (Total: 5)	
	Contact instructor or department for details.		

MUSC629Q **Ensemble; Korean Percussion Ensemble**

Credits: 1 Grading Method: Regular, Sat-Fail

Rehearsal and performance of selected works for small and large instrumental ensembles.

0101	Sebastian Wang	Seats (Total: 5)	
	Th 7:00pm - 8:30pm	PAC 2170	Lab

MUSC629R **Ensemble; Repertoire Orchestra**

(Perm req)

Credits: 1 Grading Method: Regular, Sat-Fail

Rehearsal and performance of selected works for small and large instrumental ensembles.

Audition required before permission of department will be granted. Contact instructor to make arrangements.

0101	Tiffany Lu	Seats (Total: 10)	
	MW 3:00pm - 5:00pm	PAC 1230	Lab

MUSC629U **Ensemble; University Band**

Credits: 1 Grading Method: Regular, Sat-Fail

Rehearsal and performance of selected works for small and large instrumental ensembles.

Open by audition. Contact instructor to make arrangements.

0101	Instructor: TBA	Seats (Total: 10)	
	W 7:30pm - 9:30pm	PAC 2540	Lab

MUSC629W **Ensemble; Wind Orchestra**

(Perm req)

Credits: 1 Grading Method: Regular, Sat-Fail

Rehearsal and performance of selected works for small and large instrumental ensembles.

Open by audition. Contact instructor to make arrangements.

0101	Michael Votta TuTh 3:30pm - 6:30pm	Seats (Total: 30) PAC 2540	Lab

MUSC629Z **Ensemble; Jazz Combo**

(Perm req)

Credits: 1 Grading Method: Regular, Sat-Fail

Rehearsal and performance of selected works for small and large instrumental ensembles.

Audition required before permission of department will be granted. Contact instructor to make arrangements.

0101	Gerard Kunkel Contact instructor or department for details.	Seats (Total: 5)
0201	Thomas Baldwin Contact instructor or department for details.	Seats (Total: 5)
0301	Instructor: TBA Contact instructor or department for details.	Seats (Total: 5)
0401	Leo Rayon Contact instructor or department for details.	Seats (Total: 5)

MUSC632 **The Anthropology of Music**

Credits: 3 Grading Method: Regular, Audit, Sat-Fail

Restriction: Permission of ARHU-School of Music department. Credit only granted for: MUET650 or MUSC632. Formerly: MUET650.

Explores how leading theoretical paradigms in socio-cultural anthropology have been incorporated into and shaped ethnomusicological research.

0101	Fernando Rios Th 3:30pm - 6:00pm	Seats (Total: 12) PAC 3110A

MUSC633 **Field Methods in Ethnomusicology I**

Credits: 3 Grading Method: Regular, Audit, Sat-Fail

Restriction: Permission of ARHU-School of Music department. Credit only granted for: MUET660 or MUSC633. Formerly: MUET660.

Introduction to a wide variety of methods and strategies for surveying, interviewing, and observing the dynamics of performance in contrasting settings. This is the first of three semesters of field methods.

0101	Siv Lie	Seats (Total: 12)	
	Tu 3:30pm - 6:00pm	PAC 3110A	

MUSC645 **Seminar in Vocal Pedagogy**

(Perm req)

Credits: 3 Grading Method: Regular, Audit, Sat-Fail

Prerequisite: MUSC400; or students who have taken courses with comparable content may contact the department.

A study of the physiological, psychological and acoustical aspects of the teaching of singing combined with independent study and research in areas of individual interest.

Advanced special students require department authorization.

0101	Martha Randall	Seats (Total: 12)	
	MW 9:30am - 10:45am	PAC 3168	

MUSC649A **Ensemble; University of Maryland Chorale**

(Perm req)

Credits: 1 Grading Method: Regular, Sat-Fail

Audition required before permission of department will be granted. Contact instructor to make arrangements.

0101	Kathryn Hylton, Lucas Link	Seats (Total: 10)	
	TuTh 4:30pm - 6:00pm	PAC 2201	Lab

MUSC649B **Ensemble; Chamber Singers**

(Perm req)

Credits: 1 Grading Method: Regular, Sat-Fail

Audition required before permission of department will be granted. Contact instructor to make arrangements.

0101	Aaron Peisner, Edward Maclary	Seats (Total: 10)	
	MW 3:00pm - 3:50pm	PAC 2201	
	TuTh 3:30pm - 4:20pm	PAC 2201	

MUSC649E **Ensemble; Gospel Choir**

Credits: 1 Grading Method: Regular, Sat-Fail

0101	Anne Carswell Th 7:00pm - 10:00pm	Seats (Total: 10) PAC 2201	 Lab

MUSC649M **Ensemble; Men's Chorus**

Credits: 1 Grading Method: Regular, Sat-Fail

0101	Edward Maclary MWF 12:00pm - 12:50pm	Seats (Total: 10) PAC 1230

MUSC649O **Ensemble; Opera Chorus**

(Perm req)

Credits: 1 Grading Method: Regular, Sat-Fail

0101	Edward Maclary F 4:00pm - 6:00pm	Seats (Total: 15) PAC 2170	 Lab

MUSC649W **Ensemble; Treble Choir**

Credits: 1 Grading Method: Regular, Sat-Fail

0101	Kenneth Elpus MWF 12:00pm - 12:50pm	Seats (Total: 10) PAC 2201

MUSC654 **Jazz Improvisation II**

(Perm req)

Credits: 3 Grading Method: Regular, Audit, Sat-Fail

Prerequisite: MUSC653. Restriction: Permission of ARHU-School of Music department. Credit only granted for: MUSC654 or MUSC699Z. Formerly: MUSC699Z.

Continuation of MUSC653, study of jazz improvisation techniques through analysis, transcription and composition.

0101	Gerard Kunkel Th 12:30pm - 3:00pm	Seats (Total: 5) PAC 1208

MUSC656 **Jazz Arranging**

(Perm req)

Credits: 3

Grading Method: Regular, Audit, Sat-Fail

Prerequisite: MUSC655. Restriction: Permission of ARHU-School of Music department. Credit only granted for: MUSC656 or MUSC699N. Formerly: MUSC699N.

Comprehensive approach to jazz arranging, including chord scale theory, voicing techniques, part and score layout, and formal construction of an arrangement.

0101	Tim Powell	Seats (Total: 12)
	TuTh 3:30pm - 4:45pm	PAC 2168

MUSC658 **Seminar in Advanced Analysis**

(Perm req)

Credits: 3

Grading Method: Regular, Sat-Fail

Individual analytical projects including computer music, non-western music and advanced Schenkerian analysis. Readings regarding form, structure and analytical methods.

0101	Thomas DeLio	Seats (Total: 6)
	W 1:00pm - 3:30pm	PAC 2160

MUSC659A **Seminar in Repertoire and Pedagogy; Choral Repertoire and Pedagogy**

Credits: 2-3

Grading Method: Regular, Audit, Sat-Fail

Analysis and preparation of choral master works from all major style periods for the purpose of successful rehearsal and performance by conductors.

0101	Edward Maclary	Seats (Total: 6)
	M 4:00pm - 6:30pm	PAC 3164

MUSC659B **Seminar in Repertoire and Pedagogy; Orchestral Repertoire and Pedagogy**

(Perm req)

Credits: 2

Grading Method: Regular, Audit, Sat-Fail

Analysis and preparation of choral master works from all major style periods for the purpose of successful rehearsal and performance by conductors.

0101	David Neely	Seats (Total: 10)
	Contact instructor or department for details.	

MUSC659C **Seminar in Repertoire and Pedagogy; Wind Repertoire and Pedagogy**

(Perm req)

Credits: 2-3

Grading Method: Regular, Audit, Sat-Fail

Analysis and preparation of choral master works from all major style periods for the purpose of successful rehearsal and performance by conductors.

0101	Michael Votta	Seats (Total: 5)
	Contact instructor or department for details.	

MUSC660 **String Pedagogy**

(Perm req)

Credits: 3

Grading Method: Regular, Audit, Sat-Fail

Restriction: Permission of ARHU-School of Music department. Credit only granted for: MUSC400S or MUSC660.

A study of major string pedagogical treatises, and an evaluation of string pedagogical techniques, materials, and procedures.

0301	Sarah Fuller	Seats (Total: 5)
	Contact instructor or department for details.	

MUSC661 **Theory and Analysis of Atonal and Twelve-Tone Music**

(Perm req)

Credits: 3

Grading Method: Regular, Audit, Sat-Fail

Prerequisite: MUSC450; or permission of ARHU-School of Music department. Jointly offered with MUSC461. Credit only granted for: MUSC461 or MUSC661.

An introduction to the advanced theoretical literature in atonal and twelve-tone music with an emphasis on analytical applications to music by prominent 20th-century composers.

0101	Dora Hanninen	Seats (Total: 12)
	TuTh 11:00am - 12:15pm	PAC 3160

MUSC669F **Orchestral Excerpts for String Players; BASS**

Credits: 1

Grading Method: Regular, Audit, Sat-Fail

In-depth study of the orchestral excerpts required for professional orchestra auditions.

0101	Richard Barber	Seats (Total: 15)
	M 6:00pm - 7:15pm	Location: TBA

MUSC669V **Orchestral Excerpts for String Players; HARP**

Credits: 1 Grading Method: Regular, Audit, Sat-Fail

In-depth study of the orchestral excerpts required for professional orchestra auditions.

0101	Sarah Fuller	Seats (Total: 15)
	Contact instructor or department for details.	

MUSC671 **Advanced Analytical Techniques II**

(Perm req)

Credits: 3 Grading Method: Regular, Audit, Sat-Fail

Prerequisite: MUSC451; or permission of ARHU-School of Music department.

Analysis of representative masterpieces of the nineteenth and early twentieth centuries.

0101	David Froom	Seats (Total: 12)
	M 5:30pm - 8:00pm	PAC 2164

MUSC672 **Masterworks of the 20th Century: 1900-1950**

Credits: 3 Grading Method: Regular, Audit, Sat-Fail

Restriction: Permission of ARHU-School of Music department; and must not have completed MUSC470. Credit only granted for: MUSC448M, MUSC470, MUSC672, or MUSC699M. Formerly: MUSC699M.

A comprehensive survey of Western Art-Music of the first half of the 20th Century with a more intensive study and analysis of composers who have had a profound influence in the development of compositional practice in the modern era.

0101	Mark Wilson	Seats (Total: 15)
	TuTh 2:00pm - 3:15pm	PAC 3168

MUSC673 **Style Analysis**

(Perm req)

Credits: 3 Grading Method: Regular, Audit, Sat-Fail

Prerequisite: MUSC251; and permission of ARHU-School of Music department. Restriction: Must not have completed MUSC448. Credit only granted for: MUSC673, MUSC448F, or MUSC699F. Formerly: MUSC699F.

An analytical study of musical style from the Middle Ages to present through analysis of selected compositions. The principle genres and composers of Medieval, Renaissance, Baroque, Classical, Romantic and 20th century music will be covered.

0101	Robert Gibson	Seats (Total: 15)
	TuTh 2:00pm - 3:15pm	PAC 2164

MUSC682 **Seminar in Music of the Baroque Era**

Credits: 3 Grading Method: Regular, Audit, Sat-Fail

Seminar in music of the Baroque era. Research topics in music from 1600 to 1750.

0101	Richard King	Seats (Total: 12)
	W 3:30pm - 6:00pm	PAC 3110A

MUSC699 **Selected Topics in Music**

(Perm req)

Credits: 1-3 Grading Method: Regular, Audit, Sat-Fail

Contact department for information to register for this course.

MUSC699P **Selected Topics in Music; Public Musicology**

Credits: 1-3 Grading Method: Regular, Audit, Sat-Fail

0101	William Robin	Seats (Total: 12)
	M 3:30pm - 6:00pm	PAC 3110A

MUSC699V **Selected Topics in Music; Vocal Coaching**

Credits: 1-3 Grading Method: Regular, Audit, Sat-Fail

0101	Michael Baitzer	Seats (Total: 10)
	Contact instructor or department for details.	

MUSC699W **Selected Topics in Music; Instrumental Pedagogy**

Credits: 3 Grading Method: Regular, Audit, Sat-Fail

Contact department for information to register for this course.

MUSC758 **Advanced Aural Skills for Conductors**

(Perm req)

Credits: 1 Grading Method: Regular, Sat-Fail

Continuation of MUSC757, advanced aural skills necessary for conductors.

0101	Michael Votta	Seats (Total: 5)
	W 1:00pm - 2:15pm	PAC 2126

MUSC799 **Master's Thesis Research**

(Perm req)

Credits: 1-6 Grading Method: Sat-Fail

Contact department for information to register for this course.

MUSC800A **Advanced Seminar in Music Pedagogy**

Credits: 3 Grading Method: Regular, Audit, Sat-Fail

Prerequisite: MUSC400; or students who have taken courses with comparable content may contact the department. Restriction: Permission of instructor.

A detailed study of historical and contemporary methods of pedagogy, and analysis of pedagogical problems. Sectioning by instrument. Required of all candidates for the D.M.A. Degree in performance and literature.

0101	Rita Sloan	Seats (Total: 7)
	Contact instructor or department for details.	

MUSC801A **Advanced Seminar in Music Pedagogy**

Credits: 3 Grading Method: Regular, Audit, Sat-Fail

Prerequisite: MUSC400; or students who have taken courses with comparable content may contact the department. Restriction: Permission of instructor.

A detailed study of historical and contemporary methods of pedagogy, and analysis of pedagogical problems. Sectioning by instrument. Required of all candidates for the D.M.A. Degree in performance and literature.

0101	Michael Baitzer	Seats (Total: 10)
	Th 9:30am - 12:30pm	PAC 2126

MUSC801P **Advanced Seminar in Music Pedagogy**

Credits: 3 Grading Method: Regular, Audit, Sat-Fail

Prerequisite: MUSC400; or students who have taken courses with comparable content may contact the department. Restriction: Permission of instructor.

A detailed study of historical and contemporary methods of pedagogy, and analysis of pedagogical problems. Sectioning by instrument. Required of all candidates for the D.M.A. Degree in performance and literature.

0101	Bradford Gowen	Seats (Total: 10)
	W 2:30pm - 5:00pm	PAC 3164

MUSC801V **Advanced Seminar in Music Pedagogy**

(Perm req)

Credits: 3 Grading Method: Regular, Audit, Sat-Fail

Prerequisite: MUSC400; or students who have taken courses with comparable content may contact the department. Restriction: Permission of instructor.

A detailed study of historical and contemporary methods of pedagogy, and analysis of pedagogical problems. Sectioning by instrument. Required of all candidates for the D.M.A. Degree in performance and literature.

0101	Martha Randall	Seats (Total: 15)
	W 3:00pm - 5:30pm	PAC 3168

MUSC801W **Advanced Seminar in Music Pedagogy**

Credits: 3 Grading Method: Regular, Audit, Sat-Fail

Prerequisite: MUSC400; or students who have taken courses with comparable content may contact the department. Restriction: Permission of instructor.

A detailed study of historical and contemporary methods of pedagogy, and analysis of pedagogical problems. Sectioning by instrument. Required of all candidates for the D.M.A. Degree in performance and literature.

0101	Sarah Frisof Contact instructor or department for details.	Seats (Total: 10)
0201	Mark Hill Contact instructor or department for details.	Seats (Total: 10)
0301	Robert DiLutis Contact instructor or department for details.	Seats (Total: 10)
0401	Erich Heckscher Contact instructor or department for details.	Seats (Total: 10)
0501	Tim Powell Contact instructor or department for details.	Seats (Total: 10)
0601	Gregory Miller Contact instructor or department for details.	Seats (Total: 10)
0701	Paul Gekker Contact instructor or department for details.	Seats (Total: 10)
0801	Matthew Guilford Contact instructor or department for details.	Seats (Total: 10)
0901	David Fedderly Contact instructor or department for details.	Seats (Total: 10)
1001	Paul Kellner Contact instructor or department for details.	Seats (Total: 10)
1101	Lee Hinkle Contact instructor or department for details.	Seats (Total: 10)

MUSC812 **Doctoral Opera Techniques II**

Credits: 2 Grading Method: Regular, Audit, Sat-Fail

Prerequisite: MUSC811; and permission of ARHU-School of Music department. Credit only granted for: MUSC612 or MUSC812.

Continuation of MUSC811. Techniques for opera preformance: Scene Study II; Acting II; Movement II: Stage Combat I; and Mask; and methodology seminar.

0101	Craig Kier	Seats (Total: 5)	
	TBA	PAC 2170	
	TBA	PAC 1218	Lab

MUSC814 **Doctoral Opera Techniques IV**

Credits: 2 Grading Method: Regular, Audit, Sat-Fail

Prerequisite: MUSC813; and permission of ARHU-School of Music department. Credit only granted for: MUSC614 or MUSC814.

Continuation of MUSC813. Techniques for opera performance: Scene Study IV; Dance II; Movement IV; and methodology seminar.

0101	Craig Kier	Seats (Total: 5)	
	TBA	PAC 2170	
	TBA	PAC 1218	Lab

MUSC830C **Doctoral Seminar in Music Literature**

Credits: 3 Grading Method: Regular, Audit, Sat-Fail

Prerequisite: Must have completed at least twelve hours in music history and literature.

An analytical survey of the literature of music: keyboard music; vocal music; string music; wind instrument music; required of all candidates for the D.M.A. Degree in literature-performance.

0101	Instructor: TBA	Seats (Total: 8)
	Contact instructor or department for details.	

MUSC831C **Doctoral Seminar in Music Literature**

(Perm req)

Credits: 3 Grading Method: Regular, Audit, Sat-Fail

Prerequisite: MUSC830; or permission of ARHU-School of Music department.

An analytical survey of the literature of music: keyboard music; vocal music; string music; wind instrument music. Required of all candidates for the D.M.A. Degree in literature-performance.

0101	Instructor: TBA	Seats (Total: 5)
	Contact instructor or department for details.	

MUSC831S **Doctoral Seminar in Music Literature**

Credits: 3 Grading Method: Regular, Audit, Sat-Fail

Prerequisite: MUSC830; or permission of ARHU-School of Music department.

An analytical survey of the literature of music: keyboard music; vocal music; string music; wind instrument music. Required of all candidates for the D.M.A. Degree in literature-performance.

0101	Kenneth Slowik M 9:00am - 12:00pm	Seats (Total: 15) PAC 2126

MUSC831W **Doctoral Seminar in Music Literature**

Credits: 3 Grading Method: Regular, Audit, Sat-Fail

Prerequisite: MUSC830; or permission of ARHU-School of Music department.

An analytical survey of the literature of music: keyboard music; vocal music; string music; wind instrument music. Required of all candidates for the D.M.A. Degree in literature-performance.

0101	Sarah Frisof Contact instructor or department for details.	Seats (Total: 10)
0201	Mark Hill Contact instructor or department for details.	Seats (Total: 10)
0301	Robert DiLutis Contact instructor or department for details.	Seats (Total: 10)
0401	Erich Heckscher Contact instructor or department for details.	Seats (Total: 10)
0501	Tim Powell Contact instructor or department for details.	Seats (Total: 10)
0601	Gregory Miller Contact instructor or department for details.	Seats (Total: 10)
0701	Paul Gekker Contact instructor or department for details.	Seats (Total: 10)
0801	Matthew Guilford Contact instructor or department for details.	Seats (Total: 10)

0901	David Fedderly Contact instructor or department for details.	Seats (Total: 10)
1001	Paul Kellner Contact instructor or department for details.	Seats (Total: 10)
1101	Lee Hinkle Contact instructor or department for details.	Seats (Total: 10)

MUSC898 **Pre-Candidacy Research**

Credits: 1-8 Grading Method: Regular, Sat-Fail

Contact department for information to register for this course.

MUSC899 **Doctoral Dissertation Research**

(Perm req)

Credits: 6 Grading Method: Sat-Fail

Contact department for information to register for this course.

MUSP Music Performance Spring 2020

MUSP102A **Music Performance; Piano**

(Perm req)

Credits: 2 Grading Method: Regular, Pass-Fail

Contact department for information to register for this course.

MUSP102B **Music Performance; Voice**

(Perm req)

Credits: 2 Grading Method: Regular, Pass-Fail

Contact department for information to register for this course.

MUSP102C **Music Performance; Violin**

(Perm req)

Credits: 2 Grading Method: Regular, Pass-Fail, Audit

Contact department for information to register for this course.

MUSP102D **Music Performance; Viola**

(Perm req)

Credits: 2 Grading Method: Regular, Pass-Fail

Contact department for information to register for this course.

MUSP102E **Music Performance; Cello**

(Perm req)

Credits: 2

Grading Method: Regular, Pass-Fail

Contact department for information to register for this course.

MUSP102F **Music Performance; Bass**

(Perm req)

Credits: 2

Grading Method: Regular, Pass-Fail

Contact department for information to register for this course.

MUSP102G **Music Performance; Flute**

(Perm req)

Credits: 2

Grading Method: Regular, Pass-Fail

Contact department for information to register for this course.

MUSP102H **Music Performance; Oboe**

(Perm req)

Credits: 2

Grading Method: Regular, Pass-Fail

Contact department for information to register for this course.

MUSP102I **Music Performance; Clarinet**

(Perm req)

Credits: 2

Grading Method: Regular, Pass-Fail

Contact department for information to register for this course.

MUSP102J **Music Performance; Bassoon**

(Perm req)

Credits: 2

Grading Method: Regular, Pass-Fail

Contact department for information to register for this course.

MUSP102K **Music Performance; Saxophone**

(Perm req)

Credits: 2

Grading Method: Regular, Pass-Fail

Contact department for information to register for this course.

MUSP102L **Music Performance; Horn**

(Perm req)

Credits: 2

Grading Method: Regular, Pass-Fail

Contact department for information to register for this course.

MUSP102M **Music Performance; Trumpet**

(Perm req)

Credits: 2

Grading Method: Regular, Pass-Fail

Contact department for information to register for this course.

MUSP102N **Music Performance; Trombone**

(Perm req)

Credits: 2

Grading Method: Regular, Pass-Fail

Contact department for information to register for this course.

MUSP102O **Music Performance; Tuba**

(Perm req)

Credits: 2

Grading Method: Regular, Pass-Fail

Contact department for information to register for this course.

MUSP102P **Music Performance; Euphonium**

(Perm req)

Credits: 2

Grading Method: Regular, Pass-Fail

Contact department for information to register for this course.

MUSP102Q **Music Performance; Percussion**

(Perm req)

Credits: 2

Grading Method: Regular, Pass-Fail

Contact department for information to register for this course.

MUSP102S **Music Performance; Guitar**

(Perm req)

Credits: 2

Grading Method: Regular, Pass-Fail

Contact department for information to register for this course.

MUSP102T **Music Performance**

(Perm req)

Credits: 2

Grading Method: Regular, Pass-Fail

Contact department for information to register for this course.

MUSP103A **Music Performance; Piano**

(Perm req) Credits: 2 Grading Method: Regular, Pass-Fail

Contact department for information to register for this course.

MUSP103B **Music Performance; Voice**

(Perm req) Credits: 2 Grading Method: Regular, Pass-Fail

Contact department for information to register for this course.

MUSP103C **Music Performance; Violin**

(Perm req) Credits: 2 Grading Method: Regular, Pass-Fail

Contact department for information to register for this course.

MUSP103D **Music Performance; Viola**

(Perm req) Credits: 2 Grading Method: Regular, Pass-Fail

Contact department for information to register for this course.

MUSP103E **Music Performance; Cello**

(Perm req) Credits: 2 Grading Method: Regular, Pass-Fail

Contact department for information to register for this course.

MUSP103F **Music Performance; Bass**

(Perm req) Credits: 2 Grading Method: Regular, Pass-Fail

Contact department for information to register for this course.

MUSP103G **Music Performance; Flute**

(Perm req) Credits: 2 Grading Method: Regular, Pass-Fail

Contact department for information to register for this course.

MUSP103H **Music Performance; Oboe**

(Perm req) Credits: 2 Grading Method: Regular, Pass-Fail

Contact department for information to register for this course.

MUSP103I **Music Performance; Clarinet**

(Perm req)

Credits: 2

Grading Method: Regular, Pass-Fail

Contact department for information to register for this course.

MUSP103J **Music Performance; Bassoon**

(Perm req)

Credits: 2

Grading Method: Regular, Pass-Fail

Contact department for information to register for this course.

MUSP103K **Music Performance; Saxophone**

(Perm req)

Credits: 2

Grading Method: Regular, Pass-Fail

Contact department for information to register for this course.

MUSP103L **Music Performance; Horn**

(Perm req)

Credits: 2

Grading Method: Regular, Pass-Fail

Contact department for information to register for this course.

MUSP103M **Music Performance; Trumpet**

(Perm req)

Credits: 2

Grading Method: Regular, Pass-Fail

Contact department for information to register for this course.

MUSP103N **Music Performance; Trombone**

(Perm req)

Credits: 2

Grading Method: Regular, Pass-Fail

Contact department for information to register for this course.

MUSP103O **Music Performance; Tuba**

(Perm req)

Credits: 2

Grading Method: Regular, Pass-Fail

Contact department for information to register for this course.

MUSP103P **Music Performance; Euphonium**

(Perm req)

Credits: 2

Grading Method: Regular, Pass-Fail

Contact department for information to register for this course.

MUSP103Q **Music Performance; Percussion**

(Perm req)

Credits: 2

Grading Method: Regular, Pass-Fail

Contact department for information to register for this course.

MUSP103S **Music Performance; Guitar**

(Perm req)

Credits: 2

Grading Method: Regular, Pass-Fail

Contact department for information to register for this course.

MUSP103T **Music Performance; Instrument Composition**

Credits: 2

Grading Method: Regular, Pass-Fail, Audit

Contact department for information to register for this course.

MUSP109A **Music Performance; Piano**

(Perm req)

Credits: 2

Grading Method: Regular, Pass-Fail

Contact department for information to register for this course.

MUSP109B **Music Performance; Voice**

(Perm req)

Credits: 2

Grading Method: Regular, Pass-Fail

Contact department for information to register for this course.

MUSP109C **Music Performance; Violin**

(Perm req)

Credits: 2

Grading Method: Regular, Pass-Fail

Contact department for information to register for this course.

MUSP109D **Music Performance; Viola**

(Perm req)

Credits: 2

Grading Method: Regular, Pass-Fail

Contact department for information to register for this course.

MUSP109E **Music Performance; Cello**

(Perm req)

Credits: 2

Grading Method: Regular, Pass-Fail

Contact department for information to register for this course.

MUSP109F **Music Performance; Bass**

(Perm req)

Credits: 2

Grading Method: Regular, Pass-Fail

Contact department for information to register for this course.

MUSP109G **Music Performance; Flute**

(Perm req)

Credits: 2

Grading Method: Regular, Pass-Fail

Contact department for information to register for this course.

MUSP109H **Music Performance; Oboe**

(Perm req)

Credits: 2

Grading Method: Regular, Pass-Fail

Contact department for information to register for this course.

MUSP109I **Music Performance; Clarinet**

(Perm req)

Credits: 2

Grading Method: Regular, Pass-Fail

Contact department for information to register for this course.

MUSP109J **Music Performance; Bassoon**

(Perm req)

Credits: 2

Grading Method: Regular, Pass-Fail

Contact department for information to register for this course.

MUSP109K **Music Performance; Saxophone**

(Perm req)

Credits: 2

Grading Method: Regular, Pass-Fail

Contact department for information to register for this course.

MUSP109L **Music Performance; Horn**

(Perm req)

Credits: 2

Grading Method: Regular, Pass-Fail

Contact department for information to register for this course.

MUSP109M **Music Performance; Trumpet**

(Perm req) Credits: 2 Grading Method: Regular, Pass-Fail

Contact department for information to register for this course.

MUSP109N **Music Performance; Trombone**

(Perm req) Credits: 2 Grading Method: Regular, Pass-Fail

Contact department for information to register for this course.

MUSP109O **Music Performance; Tuba**

(Perm req) Credits: 2 Grading Method: Regular, Pass-Fail

Contact department for information to register for this course.

MUSP109P **Music Performance; Euphonium**

(Perm req) Credits: 2 Grading Method: Regular, Pass-Fail

Contact department for information to register for this course.

MUSP109Q **Music Performance; Percussion**

(Perm req) Credits: 2 Grading Method: Regular, Pass-Fail

Contact department for information to register for this course.

MUSP109S **Music Performance; Guitar**

(Perm req) Credits: 2 Grading Method: Regular, Pass-Fail

Contact department for information to register for this course.

MUSP109V **Music Performance; Harp**

(Perm req) Credits: 2 Grading Method: Regular, Pass-Fail

Contact department for information to register for this course.

MUSP110A **Music Performance; Piano**

(Perm req) Credits: 2 Grading Method: Regular, Pass-Fail

Contact department for information to register for this course.

MUSP110B **Music Performance; Voice**

(Perm req)

Credits: 2

Grading Method: Regular, Pass-Fail

Contact department for information to register for this course.

MUSP110C **Music Performance; Violin**

(Perm req)

Credits: 2

Grading Method: Regular, Pass-Fail

Contact department for information to register for this course.

MUSP110D **Music Performance; Viola**

(Perm req)

Credits: 2

Grading Method: Regular, Pass-Fail

Contact department for information to register for this course.

MUSP110E **Music Performance; Cello**

(Perm req)

Credits: 2

Grading Method: Regular, Pass-Fail

Contact department for information to register for this course.

MUSP110F **Music Performance; Bass**

(Perm req)

Credits: 2

Grading Method: Regular, Pass-Fail

Contact department for information to register for this course.

MUSP110G **Music Performance; Flute**

(Perm req)

Credits: 2

Grading Method: Regular, Pass-Fail

Contact department for information to register for this course.

MUSP110H **Music Performance; Oboe**

(Perm req)

Credits: 2

Grading Method: Regular, Pass-Fail

Contact department for information to register for this course.

MUSP110I **Music Performance; Clarinet**

(Perm req)

Credits: 2

Grading Method: Regular, Pass-Fail

Contact department for information to register for this course.

MUSP110J **Music Performance; Bassoon**

(Perm req)

Credits: 2

Grading Method: Regular, Pass-Fail

Contact department for information to register for this course.

MUSP110K **Music Performance; Saxophone**

(Perm req)

Credits: 2

Grading Method: Regular, Pass-Fail

Contact department for information to register for this course.

MUSP110L **Music Performance; Horn**

(Perm req)

Credits: 2

Grading Method: Regular, Pass-Fail

Contact department for information to register for this course.

MUSP110M **Music Performance; Trumpet**

(Perm req)

Credits: 2

Grading Method: Regular, Pass-Fail

Contact department for information to register for this course.

MUSP110N **Music Performance; Trombone**

(Perm req)

Credits: 2

Grading Method: Regular, Pass-Fail

Contact department for information to register for this course.

MUSP110O **Music Performance; Tuba**

(Perm req)

Credits: 2

Grading Method: Regular, Pass-Fail

Contact department for information to register for this course.

MUSP110P **Music Performance; Euphonium**

(Perm req)

Credits: 2

Grading Method: Regular, Pass-Fail

Contact department for information to register for this course.

MUSP110Q **Music Performance; Percussion**

(Perm req)

Credits: 2

Grading Method: Regular, Pass-Fail

Contact department for information to register for this course.

MUSP110S **Music Performance; Guitar**

(Perm req)

Credits: 2

Grading Method: Regular, Pass-Fail

Contact department for information to register for this course.

MUSP110V **Music Performance; Harp**

(Perm req)

Credits: 2

Grading Method: Regular, Pass-Fail

Contact department for information to register for this course.

MUSP119A **Music Performance; Piano**

(Perm req)

Credits: 2

Grading Method: Regular, Pass-Fail

Contact department for information to register for this course.

MUSP119B **Music Performance; Voice**

(Perm req)

Credits: 2

Grading Method: Regular, Pass-Fail

Contact department for information to register for this course.

MUSP119C **Music Performance; Violin**

(Perm req)

Credits: 2

Grading Method: Regular, Pass-Fail

Contact department for information to register for this course.

MUSP119D **Music Performance; Viola**

(Perm req)

Credits: 2

Grading Method: Regular, Pass-Fail

Contact department for information to register for this course.

MUSP119E **Music Performance; Cello**

(Perm req)

Credits: 2

Grading Method: Regular, Pass-Fail

Contact department for information to register for this course.

MUSP119F **Music Performance; Bass**

(Perm req) Credits: 2 Grading Method: Regular, Pass-Fail

Contact department for information to register for this course.

MUSP119G **Music Performance; Flute**

(Perm req) Credits: 2 Grading Method: Regular, Pass-Fail

Contact department for information to register for this course.

MUSP119H **Music Performance; Oboe**

(Perm req) Credits: 2 Grading Method: Regular, Pass-Fail

Contact department for information to register for this course.

MUSP119I **Music Performance; Clarinet**

(Perm req) Credits: 2 Grading Method: Regular, Pass-Fail

Contact department for information to register for this course.

MUSP119J **Music Performance; Bassoon**

(Perm req) Credits: 2 Grading Method: Regular, Pass-Fail

Contact department for information to register for this course.

MUSP119K **Music Performance; Saxophone**

(Perm req) Credits: 2 Grading Method: Regular, Pass-Fail

Contact department for information to register for this course.

MUSP119L **Music Performance; Horn**

(Perm req) Credits: 2 Grading Method: Regular, Pass-Fail

Contact department for information to register for this course.

MUSP119M **Music Performance; Trumpet**

(Perm req) Credits: 2 Grading Method: Regular, Pass-Fail

Contact department for information to register for this course.

MUSP119N **Music Performance; Trombone**

(Perm req)

Credits: 2

Grading Method: Regular, Pass-Fail

Contact department for information to register for this course.

MUSP119O **Music Performance; Tuba**

(Perm req)

Credits: 2

Grading Method: Regular, Pass-Fail

Contact department for information to register for this course.

MUSP119P **Music Performance; Euphonium**

(Perm req)

Credits: 2

Grading Method: Regular, Pass-Fail

Contact department for information to register for this course.

MUSP119Q **Music Performance; Percussion**

(Perm req)

Credits: 2

Grading Method: Regular, Pass-Fail

Contact department for information to register for this course.

MUSP119S **Music Performance; Guitar**

(Perm req)

Credits: 2-4

Grading Method: Regular, Pass-Fail, Audit

Contact department for information to register for this course.

MUSP119T **Music Performance; Composition**

(Perm req)

Credits: 2

Grading Method: Regular, Pass-Fail

Contact department for information to register for this course.

MUSP119V **Music Performance; Harp**

(Perm req)

Credits: 2

Grading Method: Regular, Pass-Fail, Audit

Contact department for information to register for this course.

MUSP119W **Music Performance; Electronic Composition**

(Perm req)

Credits: 2

Grading Method: Regular, Pass-Fail

Contact department for information to register for this course.

MUSP120A **Music Performance; Piano**

(Perm req) Credits: 2 Grading Method: Regular, Pass-Fail

Contact department for information to register for this course.

MUSP120B **Music Performance; Voice**

(Perm req) Credits: 2 Grading Method: Regular, Pass-Fail

Contact department for information to register for this course.

MUSP120C **Music Performance; Violin**

(Perm req) Credits: 2 Grading Method: Regular, Pass-Fail

Contact department for information to register for this course.

MUSP120D **Music Performance; Viola**

(Perm req) Credits: 2 Grading Method: Regular, Pass-Fail

Contact department for information to register for this course.

MUSP120E **Music Performance; Cello**

(Perm req) Credits: 2 Grading Method: Regular, Pass-Fail

Contact department for information to register for this course.

MUSP120F **Music Performance; Bass**

(Perm req) Credits: 2 Grading Method: Regular, Pass-Fail

Contact department for information to register for this course.

MUSP120G **Music Performance; Flute**

(Perm req) Credits: 2 Grading Method: Regular, Pass-Fail

Contact department for information to register for this course.

MUSP120H **Music Performance; Oboe**

(Perm req) Credits: 2 Grading Method: Regular, Pass-Fail

Contact department for information to register for this course.

MUSP120I **Music Performance; Clarinet**

(Perm req)

Credits: 2

Grading Method: Regular, Pass-Fail

Contact department for information to register for this course.

MUSP120J **Music Performance; Bassoon**

(Perm req)

Credits: 2

Grading Method: Regular, Pass-Fail

Contact department for information to register for this course.

MUSP120K **Music Performance; Saxophone**

(Perm req)

Credits: 2

Grading Method: Regular, Pass-Fail

Contact department for information to register for this course.

MUSP120L **Music Performance; Horn**

(Perm req)

Credits: 2

Grading Method: Regular, Pass-Fail

Contact department for information to register for this course.

MUSP120M **Music Performance; Trumpet**

(Perm req)

Credits: 2

Grading Method: Regular, Pass-Fail

Contact department for information to register for this course.

MUSP120N **Music Performance; Trombone**

(Perm req)

Credits: 2

Grading Method: Regular, Pass-Fail

Contact department for information to register for this course.

MUSP120O **Music Performance; Tuba**

(Perm req)

Credits: 2

Grading Method: Regular, Pass-Fail

Contact department for information to register for this course.

MUSP120P **Music Performance; Euphonium**

(Perm req) Credits: 2 Grading Method: Regular, Pass-Fail

Contact department for information to register for this course.

MUSP120Q **Music Performance; Percussion**

(Perm req) Credits: 2 Grading Method: Regular, Pass-Fail

Contact department for information to register for this course.

MUSP120S **Music Performance; Guitar**

(Perm req) Credits: 2 Grading Method: Regular, Pass-Fail

Contact department for information to register for this course.

MUSP120T **Music Performance; Composition**

(Perm req) Credits: 2 Grading Method: Regular, Pass-Fail

Contact department for information to register for this course.

MUSP120V **Music Performance; Harp**

(Perm req) Credits: 2 Grading Method: Regular, Pass-Fail

Contact department for information to register for this course.

MUSP120W **Music Performance; Electronic Composition**

(Perm req) Credits: 2 Grading Method: Regular, Pass-Fail

Contact department for information to register for this course.

MUSP202A **Music Performance; Piano**

(Perm req) Credits: 2 Grading Method: Regular, Pass-Fail

Contact department for information to register for this course.

MUSP202B **Music Performance; Voice**

(Perm req) Credits: 2 Grading Method: Regular, Pass-Fail

Contact department for information to register for this course.

MUSP202C **Music Performance; Violin**

(Perm req)

Credits: 2

Grading Method: Regular, Pass-Fail

Contact department for information to register for this course.

MUSP202D **Music Performance; Viola**

(Perm req)

Credits: 2

Grading Method: Regular, Pass-Fail

Contact department for information to register for this course.

MUSP202E **Music Performance; Cello**

(Perm req)

Credits: 2

Grading Method: Regular, Pass-Fail

Contact department for information to register for this course.

MUSP202F **Music Performance; Bass**

(Perm req)

Credits: 2

Grading Method: Regular, Pass-Fail

Contact department for information to register for this course.

MUSP202G **Music Performance; Flute**

(Perm req)

Credits: 2

Grading Method: Regular, Pass-Fail

Contact department for information to register for this course.

MUSP202H **Music Performance; Oboe**

(Perm req)

Credits: 2

Grading Method: Regular, Pass-Fail

Contact department for information to register for this course.

MUSP202I **Music Performance; Clarinet**

(Perm req)

Credits: 2

Grading Method: Regular, Pass-Fail

Contact department for information to register for this course.

MUSP202J **Music Performance; Bassoon**

(Perm req)

Credits: 2

Grading Method: Regular, Pass-Fail

Contact department for information to register for this course.

MUSP202K **Music Performance; Saxophone**

(Perm req) Credits: 2 Grading Method: Regular, Pass-Fail

Contact department for information to register for this course.

MUSP202L **Music Performance; Horn**

(Perm req) Credits: 2 Grading Method: Regular, Pass-Fail

Contact department for information to register for this course.

MUSP202M **Music Performance; Trumpet**

(Perm req) Credits: 2 Grading Method: Regular, Pass-Fail

Contact department for information to register for this course.

MUSP202N **Music Performance; Trombone**

(Perm req) Credits: 2 Grading Method: Regular, Pass-Fail

Contact department for information to register for this course.

MUSP202O **Music Performance; Tuba**

(Perm req) Credits: 2 Grading Method: Regular, Pass-Fail

Contact department for information to register for this course.

MUSP202P **Music Performance; Euphonium**

(Perm req) Credits: 2 Grading Method: Regular, Pass-Fail

Contact department for information to register for this course.

MUSP202Q **Music Performance; Percussion**

(Perm req) Credits: 2 Grading Method: Regular, Pass-Fail

Contact department for information to register for this course.

MUSP202S **Music Performance; Guitar**

(Perm req) Credits: 2 Grading Method: Regular, Pass-Fail

Contact department for information to register for this course.

MUSP202T **Music Performance**

(Perm req)

Credits: 2 Grading Method: Regular, Pass-Fail

0201	Thomas DeLio	Seats (Total: 5)
	Contact instructor or department for details.	

MUSP203A **Music Performance; Piano**

(Perm req)

Credits: 2 Grading Method: Regular, Pass-Fail

Contact department for information to register for this course.

MUSP203B **Music Performance; Voice**

(Perm req)

Credits: 2 Grading Method: Regular, Pass-Fail

Contact department for information to register for this course.

MUSP203C **Music Performance; Violin**

(Perm req)

Credits: 2 Grading Method: Regular, Pass-Fail

Contact department for information to register for this course.

MUSP203D **Music Performance; Viola**

(Perm req)

Credits: 2 Grading Method: Regular, Pass-Fail

Contact department for information to register for this course.

MUSP203E **Music Performance; Cello**

(Perm req)

Credits: 2 Grading Method: Regular, Pass-Fail

Contact department for information to register for this course.

MUSP203F **Music Performance; Bass**

(Perm req)

Credits: 2 Grading Method: Regular, Pass-Fail

Contact department for information to register for this course.

MUSP203G **Music Performance; Flute**

(Perm req) Credits: 2 Grading Method: Regular, Pass-Fail

Contact department for information to register for this course.

MUSP203H **Music Performance; Oboe**

(Perm req) Credits: 2 Grading Method: Regular, Pass-Fail

Contact department for information to register for this course.

MUSP203I **Music Performance; Clarinet**

(Perm req) Credits: 2 Grading Method: Regular, Pass-Fail

Contact department for information to register for this course.

MUSP203J **Music Performance; Bassoon**

(Perm req) Credits: 2 Grading Method: Regular, Pass-Fail

Contact department for information to register for this course.

MUSP203K **Music Performance; Saxophone**

(Perm req) Credits: 2 Grading Method: Regular, Pass-Fail

Contact department for information to register for this course.

MUSP203L **Music Performance; Horn**

(Perm req) Credits: 2 Grading Method: Regular, Pass-Fail

Contact department for information to register for this course.

MUSP203M **Music Performance; Trumpet**

(Perm req) Credits: 2 Grading Method: Regular, Pass-Fail

Contact department for information to register for this course.

MUSP203N **Music Performance; Trombone**

(Perm req) Credits: 2 Grading Method: Regular, Pass-Fail

Contact department for information to register for this course.

MUSP203O **Music Performance; Tuba**

(Perm req)

Credits: 2

Grading Method: Regular, Pass-Fail

Contact department for information to register for this course.

MUSP203P **Music Performance; Euphonium**

(Perm req)

Credits: 2

Grading Method: Regular, Pass-Fail

Contact department for information to register for this course.

MUSP203Q **Music Performance; Percussion**

(Perm req)

Credits: 2

Grading Method: Regular, Pass-Fail

Contact department for information to register for this course.

MUSP203S **Music Performance; Guitar**

(Perm req)

Credits: 2

Grading Method: Regular, Pass-Fail

Contact department for information to register for this course.

MUSP203V **Music Performance**

(Perm req)

Credits: 2

Grading Method: Regular, Pass-Fail, Audit

Contact department for information to register for this course.

MUSP207A **Music Performance; Piano**

(Perm req)

Credits: 2

Grading Method: Regular, Pass-Fail

Contact department for information to register for this course.

MUSP207B **Music Performance; Voice**

(Perm req)

Credits: 2

Grading Method: Regular, Pass-Fail

Contact department for information to register for this course.

MUSP207C **Music Performance; Violin**

(Perm req)

Credits: 2

Grading Method: Regular, Pass-Fail

Contact department for information to register for this course.

MUSP207D **Music Performance; Viola**

(Perm req)

Credits: 2

Grading Method: Regular, Pass-Fail

Contact department for information to register for this course.

MUSP207E **Music Performance; Cello**

(Perm req)

Credits: 2

Grading Method: Regular, Pass-Fail

Contact department for information to register for this course.

MUSP207F **Music Performance; Bass**

(Perm req)

Credits: 2

Grading Method: Regular, Pass-Fail

Contact department for information to register for this course.

MUSP207G **Music Performance; Flute**

(Perm req)

Credits: 2

Grading Method: Regular, Pass-Fail

Contact department for information to register for this course.

MUSP207H **Music Performance; Oboe**

(Perm req)

Credits: 2

Grading Method: Regular, Pass-Fail

Contact department for information to register for this course.

MUSP207I **Music Performance; Clarinet**

(Perm req)

Credits: 2

Grading Method: Regular, Pass-Fail

Contact department for information to register for this course.

MUSP207J **Music Performance; Bassoon**

(Perm req)

Credits: 2

Grading Method: Regular, Pass-Fail

Contact department for information to register for this course.

MUSP207K **Music Performance; Saxophone**

(Perm req) Credits: 2 Grading Method: Regular, Pass-Fail

Contact department for information to register for this course.

MUSP207L **Music Performance; Horn**

(Perm req) Credits: 2 Grading Method: Regular, Pass-Fail

Contact department for information to register for this course.

MUSP207M **Music Performance; Trumpet**

(Perm req) Credits: 2 Grading Method: Regular, Pass-Fail

Contact department for information to register for this course.

MUSP207N **Music Performance; Trombone**

(Perm req) Credits: 2 Grading Method: Regular, Pass-Fail

Contact department for information to register for this course.

MUSP207O **Music Performance; Tuba**

(Perm req) Credits: 2 Grading Method: Regular, Pass-Fail

Contact department for information to register for this course.

MUSP207P **Music Performance; Euphonium**

(Perm req) Credits: 2 Grading Method: Regular, Pass-Fail

Contact department for information to register for this course.

MUSP207Q **Music Performance; Percussion**

(Perm req) Credits: 2 Grading Method: Regular, Pass-Fail

Contact department for information to register for this course.

MUSP207S **Music Performance; Guitar**

(Perm req) Credits: 2 Grading Method: Regular, Pass-Fail

Contact department for information to register for this course.

MUSP207V **Music Performance; Harp**

(Perm req)

Credits: 2

Grading Method: Regular, Pass-Fail

Contact department for information to register for this course.

MUSP208A **Music Performance; Piano**

(Perm req)

Credits: 2

Grading Method: Regular, Pass-Fail

Contact department for information to register for this course.

MUSP208B **Music Performance; Voice**

(Perm req)

Credits: 2

Grading Method: Regular, Pass-Fail

Contact department for information to register for this course.

MUSP208C **Music Performance; Violin**

(Perm req)

Credits: 2-4

Grading Method: Regular, Pass-Fail, Audit

Contact department for information to register for this course.

MUSP208D **Music Performance; Viola**

(Perm req)

Credits: 2

Grading Method: Regular, Pass-Fail

Contact department for information to register for this course.

MUSP208E **Music Performance; Cello**

(Perm req)

Credits: 2

Grading Method: Regular, Pass-Fail

Contact department for information to register for this course.

MUSP208F **Music Performance; Bass**

(Perm req)

Credits: 2

Grading Method: Regular, Pass-Fail

Contact department for information to register for this course.

MUSP208G **Music Performance; Flute**

(Perm req)

Credits: 2

Grading Method: Regular, Pass-Fail

Contact department for information to register for this course.

MUSP208H **Music Performance; Oboe**

(Perm req)

Credits: 2

Grading Method: Regular, Pass-Fail

Contact department for information to register for this course.

MUSP208I **Music Performance; Clarinet**

(Perm req)

Credits: 2

Grading Method: Regular, Pass-Fail

Contact department for information to register for this course.

MUSP208J **Music Performance; Bassoon**

(Perm req)

Credits: 2

Grading Method: Regular, Pass-Fail

Contact department for information to register for this course.

MUSP208K **Music Performance; Saxophone**

(Perm req)

Credits: 2

Grading Method: Regular, Pass-Fail

Contact department for information to register for this course.

MUSP208L **Music Performance; Horn**

(Perm req)

Credits: 2

Grading Method: Regular, Pass-Fail

Contact department for information to register for this course.

MUSP208M **Music Performance; Trumpet**

(Perm req)

Credits: 2

Grading Method: Regular, Pass-Fail

Contact department for information to register for this course.

MUSP208N **Music Performance; Trombone**

(Perm req)

Credits: 2

Grading Method: Regular, Pass-Fail

Contact department for information to register for this course.

MUSP208O **Music Performance; Tuba**

(Perm req)

Credits: 2

Grading Method: Regular, Pass-Fail

Contact department for information to register for this course.

MUSP208P **Music Performance; Euphonium**

(Perm req)

Credits: 2

Grading Method: Regular, Pass-Fail

Contact department for information to register for this course.

MUSP208Q **Music Performance; Percussion**

(Perm req)

Credits: 2

Grading Method: Regular, Pass-Fail

Contact department for information to register for this course.

MUSP208S **Music Performance; Guitar**

(Perm req)

Credits: 2

Grading Method: Regular, Pass-Fail

Contact department for information to register for this course.

MUSP208V **Music Performance; Harp**

(Perm req)

Credits: 2-4

Grading Method: Regular, Pass-Fail

Contact department for information to register for this course.

MUSP217A **Music Performance; Piano**

(Perm req)

Credits: 2

Grading Method: Regular, Pass-Fail

Contact department for information to register for this course.

MUSP217B **Music Performance; Voice**

(Perm req)

Credits: 2

Grading Method: Regular, Pass-Fail

Contact department for information to register for this course.

MUSP217C **Music Performance; Violin**

(Perm req)

Credits: 2

Grading Method: Regular, Pass-Fail

Contact department for information to register for this course.

MUSP217D **Music Performance; Viola**

(Perm req) Credits: 2 Grading Method: Regular, Pass-Fail

Contact department for information to register for this course.

MUSP217E **Music Performance; Cello**

(Perm req) Credits: 2 Grading Method: Regular, Pass-Fail

Contact department for information to register for this course.

MUSP217F **Music Performance; Bass**

(Perm req) Credits: 2 Grading Method: Regular, Pass-Fail

Contact department for information to register for this course.

MUSP217G **Music Performance; Flute**

(Perm req) Credits: 2 Grading Method: Regular, Pass-Fail

Contact department for information to register for this course.

MUSP217H **Music Performance; Oboe**

(Perm req) Credits: 2 Grading Method: Regular, Pass-Fail

Contact department for information to register for this course.

MUSP217I **Music Performance; Clarinet**

(Perm req) Credits: 2 Grading Method: Regular, Pass-Fail

Contact department for information to register for this course.

MUSP217J **Music Performance; Bassoon**

(Perm req) Credits: 2 Grading Method: Regular, Pass-Fail

Contact department for information to register for this course.

MUSP217K **Music Performance; Saxophone**

(Perm req) Credits: 2 Grading Method: Regular, Pass-Fail

Contact department for information to register for this course.

MUSP217L **Music Performance; Horn**

(Perm req)

Credits: 2

Grading Method: Regular, Pass-Fail

Contact department for information to register for this course.

MUSP217M **Music Performance; Trumpet**

(Perm req)

Credits: 2

Grading Method: Regular, Pass-Fail

Contact department for information to register for this course.

MUSP217N **Music Performance; Trombone**

(Perm req)

Credits: 2

Grading Method: Regular, Pass-Fail

Contact department for information to register for this course.

MUSP217O **Music Performance; Tuba**

(Perm req)

Credits: 2

Grading Method: Regular, Pass-Fail

Contact department for information to register for this course.

MUSP217P **Music Performance; Euphonium**

(Perm req)

Credits: 2

Grading Method: Regular, Pass-Fail

Contact department for information to register for this course.

MUSP217Q **Music Performance; Percussion**

(Perm req)

Credits: 2

Grading Method: Regular, Pass-Fail

Contact department for information to register for this course.

MUSP217S **Music Performance; Guitar**

(Perm req)

Credits: 2-4

Grading Method: Regular, Pass-Fail, Audit

Contact department for information to register for this course.

MUSP217T **Music Performance; Composition**

(Perm req)

Credits: 2

Grading Method: Regular, Pass-Fail

Contact department for information to register for this course.

MUSP217V **Music Performance; Harp**

(Perm req)

Credits: 2

Grading Method: Regular, Pass-Fail

Contact department for information to register for this course.

MUSP217W **Music Performance; Electronic Composition**

(Perm req)

Credits: 2

Grading Method: Regular, Pass-Fail

Contact department for information to register for this course.

MUSP218A **Music Performance; Piano**

(Perm req)

Credits: 2

Grading Method: Regular, Pass-Fail

Contact department for information to register for this course.

MUSP218B **Music Performance; Voice**

(Perm req)

Credits: 2

Grading Method: Regular, Pass-Fail

Contact department for information to register for this course.

MUSP218C **Music Performance; Violin**

(Perm req)

Credits: 2

Grading Method: Regular, Pass-Fail

Contact department for information to register for this course.

MUSP218D **Music Performance; Viola**

(Perm req)

Credits: 2

Grading Method: Regular, Pass-Fail

Contact department for information to register for this course.

MUSP218E **Music Performance; Cello**

(Perm req)

Credits: 2

Grading Method: Regular, Pass-Fail

Contact department for information to register for this course.

MUSP218F **Music Performance; Bass**

(Perm req)

Credits: 2

Grading Method: Regular, Pass-Fail

Contact department for information to register for this course.

MUSP218G **Music Performance; Flute**

(Perm req)

Credits: 2

Grading Method: Regular, Pass-Fail

Contact department for information to register for this course.

MUSP218H **Music Performance; Oboe**

(Perm req)

Credits: 2

Grading Method: Regular, Pass-Fail

Contact department for information to register for this course.

MUSP218I **Music Performance; Clarinet**

(Perm req)

Credits: 2

Grading Method: Regular, Pass-Fail

Contact department for information to register for this course.

MUSP218J **Music Performance; Bassoon**

(Perm req)

Credits: 2

Grading Method: Regular, Pass-Fail

Contact department for information to register for this course.

MUSP218K **Music Performance; Saxophone**

(Perm req)

Credits: 2

Grading Method: Regular, Pass-Fail

Contact department for information to register for this course.

MUSP218L **Music Performance; Horn**

(Perm req)

Credits: 2

Grading Method: Regular, Pass-Fail

Contact department for information to register for this course.

MUSP218M **Music Performance; Trumpet**

(Perm req)

Credits: 2

Grading Method: Regular, Pass-Fail

Contact department for information to register for this course.

MUSP218N **Music Performance; Trombone**

(Perm req) Credits: 2 Grading Method: Regular, Pass-Fail

Contact department for information to register for this course.

MUSP218O **Music Performance; Tuba**

(Perm req) Credits: 2 Grading Method: Regular, Pass-Fail

Contact department for information to register for this course.

MUSP218P **Music Performance; Euphonium**

(Perm req) Credits: 2 Grading Method: Regular, Pass-Fail

Contact department for information to register for this course.

MUSP218Q **Music Performance; Percussion**

(Perm req) Credits: 2 Grading Method: Regular, Pass-Fail

Contact department for information to register for this course.

MUSP218S **Music Performance; Guitar**

(Perm req) Credits: 2-4 Grading Method: Regular, Pass-Fail, Audit

Contact department for information to register for this course.

MUSP218T **Music Performance; Composition**

(Perm req) Credits: 2 Grading Method: Regular, Pass-Fail

Contact department for information to register for this course.

MUSP218V **Music Performance; Harp**

(Perm req) Credits: 2 Grading Method: Regular, Pass-Fail

Contact department for information to register for this course.

MUSP218W **Music Performance; Electronic Composition**

(Perm req) Credits: 2 Grading Method: Regular, Pass-Fail

Contact department for information to register for this course.

MUSP302A **Music Performance; Piano**

(Perm req)

Credits: 2

Grading Method: Regular, Pass-Fail

Contact department for information to register for this course.

MUSP302B **Music Performance; Voice**

(Perm req)

Credits: 2

Grading Method: Regular, Pass-Fail

Contact department for information to register for this course.

MUSP302C **Music Performance; Violin**

(Perm req)

Credits: 2

Grading Method: Regular, Pass-Fail

Contact department for information to register for this course.

MUSP302D **Music Performance; Viola**

(Perm req)

Credits: 2

Grading Method: Regular, Pass-Fail

Contact department for information to register for this course.

MUSP302E **Music Performance; Cello**

(Perm req)

Credits: 2

Grading Method: Regular, Pass-Fail

Contact department for information to register for this course.

MUSP302F **Music Performance; Bass**

(Perm req)

Credits: 2

Grading Method: Regular, Pass-Fail

Contact department for information to register for this course.

MUSP302G **Music Performance; Flute**

(Perm req)

Credits: 2

Grading Method: Regular, Pass-Fail

Contact department for information to register for this course.

MUSP302H **Music Performance; Oboe**

(Perm req)

Credits: 2

Grading Method: Regular, Pass-Fail

Contact department for information to register for this course.

MUSP302I **Music Performance; Clarinet**

(Perm req)

Credits: 2

Grading Method: Regular, Pass-Fail

Contact department for information to register for this course.

MUSP302J **Music Performance; Bassoon**

(Perm req)

Credits: 2

Grading Method: Regular, Pass-Fail, Audit

Contact department for information to register for this course.

MUSP302K **Music Performance; Saxophone**

(Perm req)

Credits: 2

Grading Method: Regular, Pass-Fail

Contact department for information to register for this course.

MUSP302L **Music Performance; Horn**

(Perm req)

Credits: 2

Grading Method: Regular, Pass-Fail

Contact department for information to register for this course.

MUSP302M **Music Performance; Trumpet**

(Perm req)

Credits: 2

Grading Method: Regular, Pass-Fail

Contact department for information to register for this course.

MUSP302N **Music Performance; Trombone**

(Perm req)

Credits: 2

Grading Method: Regular, Pass-Fail

Contact department for information to register for this course.

MUSP302O **Music Performance; Tuba**

(Perm req)

Credits: 2

Grading Method: Regular, Pass-Fail

Contact department for information to register for this course.

MUSP302P **Music Performance; Euphonium**

(Perm req)

Credits: 2

Grading Method: Regular, Pass-Fail

Contact department for information to register for this course.

MUSP302Q **Music Performance; Percussion**

(Perm req)

Credits: 2

Grading Method: Regular, Pass-Fail

Contact department for information to register for this course.

MUSP302S **Music Performance; Guitar**

(Perm req)

Credits: 2

Grading Method: Regular, Pass-Fail

Contact department for information to register for this course.

MUSP302V **Music Performance; Harp**

(Perm req)

Credits: 2

Grading Method: Regular, Pass-Fail

Contact department for information to register for this course.

MUSP303A **Music Performance; Piano**

(Perm req)

Credits: 2

Grading Method: Regular, Pass-Fail

Contact department for information to register for this course.

MUSP303B **Music Performance; Voice**

(Perm req)

Credits: 2

Grading Method: Regular, Pass-Fail

Contact department for information to register for this course.

MUSP303C **Music Performance; Violin**

(Perm req)

Credits: 2

Grading Method: Regular, Pass-Fail

Contact department for information to register for this course.

MUSP303D **Music Performance; Viola**

(Perm req)

Credits: 2

Grading Method: Regular, Pass-Fail

Contact department for information to register for this course.

MUSP303E **Music Performance; Cello**

(Perm req) Credits: 2 Grading Method: Regular, Pass-Fail

Contact department for information to register for this course.

MUSP303F **Music Performance; Bass**

(Perm req) Credits: 2 Grading Method: Regular, Pass-Fail

Contact department for information to register for this course.

MUSP303G **Music Performance; Flute**

(Perm req) Credits: 2 Grading Method: Regular, Pass-Fail

Contact department for information to register for this course.

MUSP303H **Music Performance; Oboe**

(Perm req) Credits: 2 Grading Method: Regular, Pass-Fail

Contact department for information to register for this course.

MUSP303I **Music Performance; Clarinet**

(Perm req) Credits: 2 Grading Method: Regular, Pass-Fail

Contact department for information to register for this course.

MUSP303J **Music Performance; Bassoon**

(Perm req) Credits: 2 Grading Method: Regular, Pass-Fail

Contact department for information to register for this course.

MUSP303K **Music Performance; Saxophone**

(Perm req) Credits: 2 Grading Method: Regular, Pass-Fail

Contact department for information to register for this course.

MUSP303L **Music Performance; Horn**

(Perm req) Credits: 2 Grading Method: Regular, Pass-Fail

Contact department for information to register for this course.

MUSP303M **Music Performance; Trumpet**

(Perm req)

Credits: 2

Grading Method: Regular, Pass-Fail

Contact department for information to register for this course.

MUSP303N **Music Performance; Trombone**

(Perm req)

Credits: 2

Grading Method: Regular, Pass-Fail

Contact department for information to register for this course.

MUSP303O **Music Performance; Tuba**

(Perm req)

Credits: 2

Grading Method: Regular, Pass-Fail

Contact department for information to register for this course.

MUSP303P **Music Performance; Euphonium**

(Perm req)

Credits: 2

Grading Method: Regular, Pass-Fail

Contact department for information to register for this course.

MUSP303Q **Music Performance; Percussion**

(Perm req)

Credits: 2

Grading Method: Regular, Pass-Fail

Contact department for information to register for this course.

MUSP303S **Music Performance; Guitar**

(Perm req)

Credits: 2

Grading Method: Regular, Pass-Fail

Contact department for information to register for this course.

MUSP303V **Music Performance; Harp**

(Perm req)

Credits: 2

Grading Method: Regular, Pass-Fail, Audit

Contact department for information to register for this course.

MUSP305A **Music Performance; Piano**

(Perm req)

Credits: 2

Grading Method: Regular, Pass-Fail

Contact department for information to register for this course.

MUSP305B **Music Performance; Voice**

(Perm req)

Credits: 2

Grading Method: Regular, Pass-Fail

Contact department for information to register for this course.

MUSP305C **Music Performance; Violin**

(Perm req)

Credits: 2

Grading Method: Regular, Pass-Fail

Contact department for information to register for this course.

MUSP305D **Music Performance; Viola**

(Perm req)

Credits: 2

Grading Method: Regular, Pass-Fail

Contact department for information to register for this course.

MUSP305E **Music Performance; Cello**

(Perm req)

Credits: 2

Grading Method: Regular, Pass-Fail

Contact department for information to register for this course.

MUSP305F **Music Performance; Bass**

(Perm req)

Credits: 2

Grading Method: Regular, Pass-Fail

Contact department for information to register for this course.

MUSP305G **Music Performance; Flute**

(Perm req)

Credits: 2

Grading Method: Regular, Pass-Fail

Contact department for information to register for this course.

MUSP305H **Music Performance; Oboe**

(Perm req)

Credits: 2

Grading Method: Regular, Pass-Fail

Contact department for information to register for this course.

MUSP305I **Music Performance; Clarinet**

(Perm req)

Credits: 2

Grading Method: Regular, Pass-Fail

Contact department for information to register for this course.

MUSP305J **Music Performance; Bassoon**

(Perm req)

Credits: 2

Grading Method: Regular, Pass-Fail

Contact department for information to register for this course.

MUSP305K **Music Performance; Saxophone**

(Perm req)

Credits: 2

Grading Method: Regular, Pass-Fail

Contact department for information to register for this course.

MUSP305L **Music Performance; Horn**

(Perm req)

Credits: 2

Grading Method: Regular, Pass-Fail

Contact department for information to register for this course.

MUSP305M **Music Performance; Trumpet**

(Perm req)

Credits: 2

Grading Method: Regular, Pass-Fail

Contact department for information to register for this course.

MUSP305N **Music Performance; Trombone**

(Perm req)

Credits: 2

Grading Method: Regular, Pass-Fail

Contact department for information to register for this course.

MUSP305O **Music Performance; Tuba**

(Perm req)

Credits: 2-4

Grading Method: Regular, Pass-Fail

Contact department for information to register for this course.

MUSP305P **Music Performance; Euphonium**

(Perm req)

Credits: 2

Grading Method: Regular, Pass-Fail

Contact department for information to register for this course.

MUSP305Q **Music Performance; Percussion**

(Perm req) Credits: 2 Grading Method: Regular, Pass-Fail

Contact department for information to register for this course.

MUSP305S **Music Performance; Guitar**

(Perm req) Credits: 2 Grading Method: Regular, Pass-Fail

Contact department for information to register for this course.

MUSP305V **Music Performance; Harp**

(Perm req) Credits: 2 Grading Method: Regular, Pass-Fail

Contact department for information to register for this course.

MUSP306A **Music Performance; Piano**

(Perm req) Credits: 2 Grading Method: Regular, Pass-Fail

Contact department for information to register for this course.

MUSP306B **Music Performance; Voice**

(Perm req) Credits: 2 Grading Method: Regular, Pass-Fail

Contact department for information to register for this course.

MUSP306C **Music Performance; Violin**

(Perm req) Credits: 2 Grading Method: Regular, Pass-Fail

Contact department for information to register for this course.

MUSP306D **Music Performance; Viola**

(Perm req) Credits: 2 Grading Method: Regular, Pass-Fail

Contact department for information to register for this course.

MUSP306E **Music Performance; Cello**

(Perm req) Credits: 2 Grading Method: Regular, Pass-Fail

Contact department for information to register for this course.

MUSP306F **Music Performance; Bass**

(Perm req)

Credits: 2

Grading Method: Regular, Pass-Fail

Contact department for information to register for this course.

MUSP306G **Music Performance; Flute**

(Perm req)

Credits: 2

Grading Method: Regular, Pass-Fail

Contact department for information to register for this course.

MUSP306H **Music Performance; Oboe**

(Perm req)

Credits: 2

Grading Method: Regular, Pass-Fail

Contact department for information to register for this course.

MUSP306I **Music Performance; Clarinet**

(Perm req)

Credits: 2

Grading Method: Regular, Pass-Fail

Contact department for information to register for this course.

MUSP306J **Music Performance; Bassoon**

(Perm req)

Credits: 2

Grading Method: Regular, Pass-Fail, Audit

Contact department for information to register for this course.

MUSP306K **Music Performance; Saxophone**

(Perm req)

Credits: 2

Grading Method: Regular, Pass-Fail, Audit

Contact department for information to register for this course.

MUSP306L **Music Performance; Horn**

(Perm req)

Credits: 2

Grading Method: Regular, Pass-Fail, Audit

Contact department for information to register for this course.

MUSP306M **Music Performance; Trumpet**

(Perm req)

Credits: 2

Grading Method: Regular, Pass-Fail, Audit

Contact department for information to register for this course.

MUSP306N **Music Performance; Trombone**

(Perm req)

Credits: 2

Grading Method: Regular, Pass-Fail, Audit

Contact department for information to register for this course.

MUSP306O **Music Performance; Tuba**

(Perm req)

Credits: 2

Grading Method: Regular, Pass-Fail, Audit

Contact department for information to register for this course.

MUSP306P **Music Performance; Euphonium**

(Perm req)

Credits: 2

Grading Method: Regular, Pass-Fail, Audit

Contact department for information to register for this course.

MUSP306Q **Music Performance; Percussion**

(Perm req)

Credits: 2

Grading Method: Regular, Pass-Fail, Audit

Contact department for information to register for this course.

MUSP306S **Music Performance; Guitar**

(Perm req)

Credits: 2

Grading Method: Regular, Pass-Fail, Audit

Contact department for information to register for this course.

MUSP306V **Music Performance; Harp**

(Perm req)

Credits: 2

Grading Method: Regular, Pass-Fail, Audit

Contact department for information to register for this course.

MUSP315A **Music Performance; Piano**

(Perm req)

Credits: 2

Grading Method: Regular, Pass-Fail, Audit

Contact department for information to register for this course.

MUSP315B **Music Performance; Voice**

(Perm req)

Credits: 2

Grading Method: Regular, Pass-Fail, Audit

Contact department for information to register for this course.

MUSP315C **Music Performance; Violin**

(Perm req)

Credits: 2

Grading Method: Regular, Pass-Fail, Audit

Contact department for information to register for this course.

MUSP315D **Music Performance; Viola**

(Perm req)

Credits: 2

Grading Method: Regular, Pass-Fail, Audit

Contact department for information to register for this course.

MUSP315E **Music Performance; Cello**

(Perm req)

Credits: 2

Grading Method: Regular, Pass-Fail, Audit

Contact department for information to register for this course.

MUSP315F **Music Performance; Bass**

(Perm req)

Credits: 2

Grading Method: Regular, Pass-Fail, Audit

Contact department for information to register for this course.

MUSP315G **Music Performance; Flute**

(Perm req)

Credits: 2

Grading Method: Regular, Pass-Fail, Audit

Contact department for information to register for this course.

MUSP315H **Music Performance; Oboe**

(Perm req)

Credits: 2

Grading Method: Regular, Pass-Fail, Audit

Contact department for information to register for this course.

MUSP315I **Music Performance; Clarinet**

(Perm req)

Credits: 2

Grading Method: Regular, Pass-Fail, Audit

Contact department for information to register for this course.

MUSP315J **Music Performance; Bassoon**

(Perm req) Credits: 2 Grading Method: Regular, Pass-Fail, Audit

Contact department for information to register for this course.

MUSP315K **Music Performance; Saxophone**

(Perm req) Credits: 2 Grading Method: Regular, Pass-Fail, Audit

Contact department for information to register for this course.

MUSP315L **Music Performance; Horn**

(Perm req) Credits: 2 Grading Method: Regular, Pass-Fail, Audit

Contact department for information to register for this course.

MUSP315M **Music Performance; Trumpet**

(Perm req) Credits: 2 Grading Method: Regular, Pass-Fail, Audit

Contact department for information to register for this course.

MUSP315N **Music Performance; Trombone**

(Perm req) Credits: 2 Grading Method: Regular, Pass-Fail, Audit

Contact department for information to register for this course.

MUSP315O **Music Performance; Tuba**

(Perm req) Credits: 2 Grading Method: Regular, Pass-Fail, Audit

Contact department for information to register for this course.

MUSP315P **Music Performance; Euphonium**

(Perm req) Credits: 2 Grading Method: Regular, Pass-Fail, Audit

Contact department for information to register for this course.

MUSP315Q **Music Performance; Percussion**

(Perm req) Credits: 2 Grading Method: Regular, Pass-Fail, Audit

Contact department for information to register for this course.

MUSP315S **Music Performance; Guitar**

(Perm req)

Credits: 2-4

Grading Method: Regular, Pass-Fail, Audit

Contact department for information to register for this course.

MUSP315T **Music Performance; Composition**

(Perm req)

Credits: 2

Grading Method: Regular, Pass-Fail, Audit

Contact department for information to register for this course.

MUSP315V **Music Performance; Harp**

(Perm req)

Credits: 2

Grading Method: Regular, Pass-Fail, Audit

Contact department for information to register for this course.

MUSP315W **Music Performance; Electronic Composition**

(Perm req)

Credits: 2

Grading Method: Regular, Pass-Fail, Audit

Contact department for information to register for this course.

MUSP316A **Music Performance; Piano**

(Perm req)

Credits: 2

Grading Method: Regular, Pass-Fail, Audit

Contact department for information to register for this course.

MUSP316B **Music Performance; Voice**

(Perm req)

Credits: 2

Grading Method: Regular, Pass-Fail, Audit

Contact department for information to register for this course.

MUSP316C **Music Performance; Violin**

(Perm req)

Credits: 2

Grading Method: Regular, Pass-Fail, Audit

Contact department for information to register for this course.

MUSP316D **Music Performance; Viola**

(Perm req)

Credits: 2

Grading Method: Regular, Pass-Fail, Audit

Contact department for information to register for this course.

MUSP316E **Music Performance; Cello**

(Perm req)

Credits: 2

Grading Method: Regular, Pass-Fail, Audit

Contact department for information to register for this course.

MUSP316F **Music Performance; Bass**

(Perm req)

Credits: 2

Grading Method: Regular, Pass-Fail, Audit

Contact department for information to register for this course.

MUSP316G **Music Performance; Flute**

(Perm req)

Credits: 2

Grading Method: Regular, Pass-Fail, Audit

Contact department for information to register for this course.

MUSP316H **Music Performance; Oboe**

(Perm req)

Credits: 2

Grading Method: Regular, Pass-Fail, Audit

Contact department for information to register for this course.

MUSP316I **Music Performance; Clarinet**

(Perm req)

Credits: 2

Grading Method: Regular, Pass-Fail, Audit

Contact department for information to register for this course.

MUSP316J **Music Performance; Bassoon**

(Perm req)

Credits: 2

Grading Method: Regular, Pass-Fail, Audit

Contact department for information to register for this course.

MUSP316K **Music Performance; Saxophone**

(Perm req)

Credits: 2

Grading Method: Regular, Pass-Fail, Audit

Contact department for information to register for this course.

MUSP316L **Music Performance; Horn**

(Perm req)

Credits: 2

Grading Method: Regular, Pass-Fail, Audit

Contact department for information to register for this course.

MUSP316M **Music Performance; Trumpet**

(Perm req)

Credits: 2

Grading Method: Regular, Pass-Fail, Audit

Contact department for information to register for this course.

MUSP316N **Music Performance; Trombone**

(Perm req)

Credits: 2

Grading Method: Regular, Pass-Fail, Audit

Contact department for information to register for this course.

MUSP316O **Music Performance; Tuba**

(Perm req)

Credits: 2

Grading Method: Regular, Pass-Fail, Audit

Contact department for information to register for this course.

MUSP316P **Music Performance; Euphonium**

(Perm req)

Credits: 2

Grading Method: Regular, Pass-Fail, Audit

Contact department for information to register for this course.

MUSP316Q **Music Performance; Percussion**

(Perm req)

Credits: 2

Grading Method: Regular, Pass-Fail, Audit

Contact department for information to register for this course.

MUSP316S **Music Performance; Guitar**

(Perm req)

Credits: 2-4

Grading Method: Regular, Pass-Fail, Audit

Contact department for information to register for this course.

MUSP316T **Music Performance; Composition**

(Perm req)

Credits: 2

Grading Method: Regular, Pass-Fail, Audit

Contact department for information to register for this course.

MUSP316V **Music Performance; Harp**

(Perm req)

Credits: 2

Grading Method: Regular, Pass-Fail, Audit

Contact department for information to register for this course.

MUSP316W **Music Performance; Electronic Composition**

(Perm req)

Credits: 2

Grading Method: Regular, Pass-Fail, Audit

Contact department for information to register for this course.

MUSP402A **Music Performance; Piano**

(Perm req)

Credits: 2

Grading Method: Regular, Pass-Fail, Audit

Senior course, in the minor series.

Contact department for information to register for this course.

MUSP402B **Music Performance; Voice**

(Perm req)

Credits: 2

Grading Method: Regular, Pass-Fail, Audit

Senior course, in the minor series.

Contact department for information to register for this course.

MUSP402C **Music Performance; Violin**

(Perm req)

Credits: 2

Grading Method: Regular, Pass-Fail, Audit

Senior course, in the minor series.

Contact department for information to register for this course.

MUSP402D **Music Performance; Viola**

(Perm req)

Credits: 2

Grading Method: Regular, Pass-Fail, Audit

Senior course, in the minor series.

Contact department for information to register for this course.

MUSP402E **Music Performance; Cello**

(Perm req)

Credits: 2

Grading Method: Regular, Pass-Fail, Audit

Senior course, in the minor series.

Contact department for information to register for this course.

MUSP402F **Music Performance; Bass**

(Perm req)

Credits: 2 Grading Method: Regular, Pass-Fail, Audit

Senior course, in the minor series.

Contact department for information to register for this course.

MUSP402G **Music Performance; Flute**

(Perm req)

Credits: 2 Grading Method: Regular, Pass-Fail, Audit

Senior course, in the minor series.

Contact department for information to register for this course.

MUSP402H **Music Performance; Oboe**

(Perm req)

Credits: 2 Grading Method: Regular, Pass-Fail, Audit

Senior course, in the minor series.

Contact department for information to register for this course.

MUSP402I **Music Performance; Clarinet**

(Perm req)

Credits: 2 Grading Method: Regular, Pass-Fail, Audit

Senior course, in the minor series.

Contact department for information to register for this course.

MUSP402J **Music Performance; Bassoon**

(Perm req)

Credits: 2 Grading Method: Regular, Pass-Fail, Audit

Senior course, in the minor series.

Contact department for information to register for this course.

MUSP402K **Music Performance; Saxophone**

(Perm req)

Credits: 2 Grading Method: Regular, Pass-Fail, Audit

Senior course, in the minor series.

Contact department for information to register for this course.

MUSP402L **Music Performance; Horn**

(Perm req)

Credits: 2 Grading Method: Regular, Pass-Fail, Audit

Senior course, in the minor series.

Contact department for information to register for this course.

MUSP402M **Music Performance; Trumpet**

(Perm req)

Credits: 2 Grading Method: Regular, Pass-Fail, Audit

Senior course, in the minor series.

Contact department for information to register for this course.

MUSP402N **Music Performance; Trombone**

(Perm req)

Credits: 2 Grading Method: Regular, Pass-Fail, Audit

Senior course, in the minor series.

Contact department for information to register for this course.

MUSP402O **Music Performance; Tuba**

(Perm req)

Credits: 2 Grading Method: Regular, Pass-Fail, Audit

Senior course, in the minor series.

Contact department for information to register for this course.

MUSP402P **Music Performance; Euphonium**

(Perm req)

Credits: 2 Grading Method: Regular, Pass-Fail, Audit

Senior course, in the minor series.

Contact department for information to register for this course.

MUSP402Q **Music Performance; Percussion**

(Perm req)

Credits: 2 Grading Method: Regular, Pass-Fail, Audit

Senior course, in the minor series.

Contact department for information to register for this course.

MUSP402S **Music Performance; Guitar**

(Perm req)

Credits: 2 Grading Method: Regular, Pass-Fail, Audit

Senior course, in the minor series.

Contact department for information to register for this course.

MUSP402V **Music Performance; Harp**

(Perm req)

Credits: 2 Grading Method: Regular, Pass-Fail, Audit

Senior course, in the minor series.

Contact department for information to register for this course.

MUSP403A **Music Performance; Piano**

(Perm req)

Credits: 2 Grading Method: Regular, Pass-Fail, Audit

Senior course, in the minor series.

Contact department for information to register for this course.

MUSP403B **Music Performance; Voice**

(Perm req)

Credits: 2 Grading Method: Regular, Pass-Fail, Audit

Senior course, in the minor series.

Contact department for information to register for this course.

MUSP403C **Music Performance; Violin**

(Perm req)

Credits: 2 Grading Method: Regular, Pass-Fail, Audit

Senior course, in the minor series.

Contact department for information to register for this course.

MUSP403D **Music Performance; Viola**

(Perm req)

Credits: 2 Grading Method: Regular, Pass-Fail, Audit

Senior course, in the minor series.

Contact department for information to register for this course.

MUSP403E **Music Performance; Cello**

(Perm req)

Credits: 2 Grading Method: Regular, Pass-Fail, Audit

Senior course, in the minor series.

Contact department for information to register for this course.

MUSP403F **Music Performance; Bass**

(Perm req)

Credits: 2 Grading Method: Regular, Pass-Fail, Audit

Senior course, in the minor series.

Contact department for information to register for this course.

MUSP403G **Music Performance; Flute**

(Perm req)

Credits: 2 Grading Method: Regular, Pass-Fail, Audit

Senior course, in the minor series.

Contact department for information to register for this course.

MUSP403H **Music Performance; Oboe**

(Perm req)

Credits: 2 Grading Method: Regular, Pass-Fail, Audit

Senior course, in the minor series.

Contact department for information to register for this course.

MUSP403I **Music Performance; Clarinet**

(Perm req)

Credits: 2 Grading Method: Regular, Pass-Fail, Audit

Senior course, in the minor series.

Contact department for information to register for this course.

MUSP403J **Music Performance; Bassoon**

(Perm req)

Credits: 2 Grading Method: Regular, Pass-Fail, Audit

Senior course, in the minor series.

Contact department for information to register for this course.

MUSP403K **Music Performance; Saxophone**

(Perm req)

Credits: 2 Grading Method: Regular, Pass-Fail, Audit

Senior course, in the minor series.

Contact department for information to register for this course.

MUSP403L **Music Performance; Horn**

(Perm req)

Credits: 2 Grading Method: Regular, Pass-Fail, Audit

Senior course, in the minor series.

Contact department for information to register for this course.

MUSP403M **Music Performance; Trumpet**

(Perm req)

Credits: 2 Grading Method: Regular, Pass-Fail, Audit

Senior course, in the minor series.

Contact department for information to register for this course.

MUSP403N **Music Performance; Trombone**

(Perm req)

Credits: 2 Grading Method: Regular, Pass-Fail, Audit

Senior course, in the minor series.

Contact department for information to register for this course.

MUSP403O **Music Performance; Tuba**

(Perm req)

Credits: 2 Grading Method: Regular, Pass-Fail, Audit

Senior course, in the minor series.

Contact department for information to register for this course.

MUSP403P **Music Performance; Euphonium**

(Perm req)

Credits: 2 Grading Method: Regular, Pass-Fail, Audit

Senior course, in the minor series.

Contact department for information to register for this course.

MUSP403Q **Music Performance; Percussion**

(Perm req)

Credits: 2 Grading Method: Regular, Pass-Fail, Audit

Senior course, in the minor series.

Contact department for information to register for this course.

MUSP403S **Music Performance; Guitar**

(Perm req)

Credits: 2 Grading Method: Regular, Pass-Fail, Audit

Senior course, in the minor series.

Contact department for information to register for this course.

MUSP409A **Music Performance; Piano**

(Perm req)

Credits: 2 Grading Method: Regular, Pass-Fail, Audit

Senior course in the principal series.

Contact department for information to register for this course.

MUSP409B **Music Performance; Voice**

(Perm req)

Credits: 2 Grading Method: Regular, Pass-Fail, Audit

Senior course in the principal series.

Contact department for information to register for this course.

MUSP409C **Music Performance; Violin**

(Perm req)

Credits: 2 Grading Method: Regular, Pass-Fail, Audit

Senior course in the principal series.

Contact department for information to register for this course.

MUSP409D **Music Performance; Viola**

(Perm req)

Credits: 2 Grading Method: Regular, Pass-Fail, Audit

Senior course in the principal series.

Contact department for information to register for this course.

MUSP409E **Music Performance; Cello**

(Perm req)

Credits: 2 Grading Method: Regular, Pass-Fail, Audit

Senior course in the principal series.

Contact department for information to register for this course.

MUSP409F **Music Performance; Bass**

(Perm req)

Credits: 2 Grading Method: Regular, Pass-Fail, Audit

Senior course in the principal series.

Contact department for information to register for this course.

MUSP409G **Music Performance; Flute**

(Perm req)

Credits: 2 Grading Method: Regular, Pass-Fail, Audit

Senior course in the principal series.

Contact department for information to register for this course.

MUSP409H **Music Performance; Oboe**

(Perm req)

Credits: 2 Grading Method: Regular, Pass-Fail, Audit

Senior course in the principal series.

Contact department for information to register for this course.

MUSP409I **Music Performance; Clarinet**

(Perm req)

Credits: 2 Grading Method: Regular, Pass-Fail, Audit

Senior course in the principal series.

Contact department for information to register for this course.

MUSP409J **Music Performance; Bassoon**

(Perm req)

Credits: 2 Grading Method: Regular, Pass-Fail, Audit

Senior course in the principal series.

Contact department for information to register for this course.

MUSP409K **Music Performance; Saxophone**

(Perm req)

Credits: 2

Grading Method: Regular, Pass-Fail, Audit

Senior course in the principal series.

Contact department for information to register for this course.

MUSP409L **Music Performance; Horn**

(Perm req)

Credits: 2

Grading Method: Regular, Pass-Fail, Audit

Senior course in the principal series.

Contact department for information to register for this course.

MUSP409M **Music Performance; Trumpet**

(Perm req)

Credits: 2

Grading Method: Regular, Pass-Fail, Audit

Senior course in the principal series.

Contact department for information to register for this course.

MUSP409N **Music Performance; Trombone**

(Perm req)

Credits: 2

Grading Method: Regular, Pass-Fail, Audit

Senior course in the principal series.

Contact department for information to register for this course.

MUSP409O **Music Performance; Tuba**

(Perm req)

Credits: 2

Grading Method: Regular, Pass-Fail, Audit

Senior course in the principal series.

Contact department for information to register for this course.

MUSP409P **Music Performance; Euphonium**

(Perm req)

Credits: 2

Grading Method: Regular, Pass-Fail, Audit

Senior course in the principal series.

Contact department for information to register for this course.

MUSP409Q **Music Performance; Percussion**

(Perm req)

Credits: 2 Grading Method: Regular, Pass-Fail, Audit

Senior course in the principal series.

Contact department for information to register for this course.

MUSP409S **Music Performance; Guitar**

(Perm req)

Credits: 2 Grading Method: Regular, Pass-Fail, Audit

Senior course in the principal series.

Contact department for information to register for this course.

MUSP409V **Music Performance; Harp**

(Perm req)

Credits: 2 Grading Method: Regular, Pass-Fail, Audit

Senior course in the principal series.

Contact department for information to register for this course.

MUSP410A **Music Performance; Piano**

(Perm req)

Credits: 2 Grading Method: Regular, Pass-Fail, Audit

Senior course in the principal series. Recital required.

Contact department for information to register for this course.

MUSP410B **Music Performance; Voice**

(Perm req)

Credits: 2 Grading Method: Regular, Pass-Fail, Audit

Senior course in the principal series. Recital required.

Contact department for information to register for this course.

MUSP410C **Music Performance; Violin**

(Perm req)

Credits: 2 Grading Method: Regular, Pass-Fail, Audit

Senior course in the principal series. Recital required.

Contact department for information to register for this course.

MUSP410D **Music Performance; Viola**

(Perm req)

Credits: 2 Grading Method: Regular, Pass-Fail, Audit

Senior course in the principal series. Recital required.

Contact department for information to register for this course.

MUSP410E **Music Performance; Cello**

(Perm req)

Credits: 2 Grading Method: Regular, Pass-Fail, Audit

Senior course in the principal series. Recital required.

Contact department for information to register for this course.

MUSP410F **Music Performance; Bass**

(Perm req)

Credits: 2 Grading Method: Regular, Pass-Fail, Audit

Senior course in the principal series. Recital required.

Contact department for information to register for this course.

MUSP410G **Music Performance; Flute**

(Perm req)

Credits: 2 Grading Method: Regular, Pass-Fail, Audit

Senior course in the principal series. Recital required.

Contact department for information to register for this course.

MUSP410H **Music Performance; Oboe**

(Perm req)

Credits: 2 Grading Method: Regular, Pass-Fail, Audit

Senior course in the principal series. Recital required.

Contact department for information to register for this course.

MUSP410I **Music Performance; Clarinet**

(Perm req)

Credits: 2 Grading Method: Regular, Pass-Fail, Audit

Senior course in the principal series. Recital required.

Contact department for information to register for this course.

MUSP410J **Music Performance; Bassoon**

(Perm req)

Credits: 2 Grading Method: Regular, Pass-Fail, Audit

Senior course in the principal series. Recital required.

Contact department for information to register for this course.

MUSP410K **Music Performance; Saxophone**

(Perm req)

Credits: 2 Grading Method: Regular, Pass-Fail, Audit

Senior course in the principal series. Recital required.

Contact department for information to register for this course.

MUSP410L **Music Performance; Horn**

(Perm req)

Credits: 2 Grading Method: Regular, Pass-Fail, Audit

Senior course in the principal series. Recital required.

Contact department for information to register for this course.

MUSP410M **Music Performance; Trumpet**

(Perm req)

Credits: 2 Grading Method: Regular, Pass-Fail, Audit

Senior course in the principal series. Recital required.

Contact department for information to register for this course.

MUSP410N **Music Performance; Trombone**

(Perm req)

Credits: 2 Grading Method: Regular, Pass-Fail, Audit

Senior course in the principal series. Recital required.

Contact department for information to register for this course.

MUSP410O **Music Performance; Tuba**

(Perm req)

Credits: 2 Grading Method: Regular, Pass-Fail, Audit

Senior course in the principal series. Recital required.

Contact department for information to register for this course.

MUSP410P **Music Performance; Euphonium**

(Perm req)

Credits: 2 Grading Method: Regular, Pass-Fail, Audit

Senior course in the principal series. Recital required.

Contact department for information to register for this course.

MUSP410Q **Music Performance; Percussion**

(Perm req)

Credits: 2 Grading Method: Regular, Pass-Fail, Audit

Senior course in the principal series. Recital required.

Contact department for information to register for this course.

MUSP410S **Music Performance; Guitar**

(Perm req)

Credits: 2 Grading Method: Regular, Pass-Fail, Audit

Senior course in the principal series. Recital required.

Contact department for information to register for this course.

MUSP410V **Music Performance; Harp**

(Perm req)

Credits: 2 Grading Method: Regular, Pass-Fail, Audit

Senior course in the principal series. Recital required.

Contact department for information to register for this course.

MUSP419A **Music Performance; Piano**

(Perm req)

Credits: 2 Grading Method: Regular, Pass-Fail, Audit

Senior course in the major series.

Contact department for information to register for this course.

MUSP419B **Music Performance; Voice**

(Perm req)

Credits: 2 Grading Method: Regular, Pass-Fail, Audit

Senior course in the major series.

Contact department for information to register for this course.

MUSP419C **Music Performance; Violin**

(Perm req)

Credits: 2 Grading Method: Regular, Pass-Fail, Audit

Senior course in the major series.

Contact department for information to register for this course.

MUSP419D **Music Performance; Viola**

(Perm req)

Credits: 2 Grading Method: Regular, Pass-Fail, Audit

Senior course in the major series.

Contact department for information to register for this course.

MUSP419E **Music Performance; Cello**

(Perm req)

Credits: 2 Grading Method: Regular, Pass-Fail, Audit

Senior course in the major series.

Contact department for information to register for this course.

MUSP419F **Music Performance; Bass**

(Perm req)

Credits: 2 Grading Method: Regular, Pass-Fail, Audit

Senior course in the major series.

Contact department for information to register for this course.

MUSP419G **Music Performance; Flute**

(Perm req)

Credits: 2 Grading Method: Regular, Pass-Fail, Audit

Senior course in the major series.

Contact department for information to register for this course.

MUSP419H **Music Performance; Oboe**

(Perm req)

Credits: 2 Grading Method: Regular, Pass-Fail, Audit

Senior course in the major series.

Contact department for information to register for this course.

MUSP419I **Music Performance; Clarinet**

(Perm req)

Credits: 2 Grading Method: Regular, Pass-Fail, Audit

Senior course in the major series.

Contact department for information to register for this course.

MUSP419J **Music Performance; Bassoon**

(Perm req)

Credits: 2 Grading Method: Regular, Pass-Fail, Audit

Senior course in the major series.

Contact department for information to register for this course.

MUSP419K **Music Performance; Saxophone**

(Perm req)

Credits: 2 Grading Method: Regular, Pass-Fail, Audit

Senior course in the major series.

Contact department for information to register for this course.

MUSP419L **Music Performance; Horn**

(Perm req)

Credits: 2 Grading Method: Regular, Pass-Fail, Audit

Senior course in the major series.

Contact department for information to register for this course.

MUSP419M **Music Performance; Trumpet**

(Perm req)

Credits: 2 Grading Method: Regular, Pass-Fail, Audit

Senior course in the major series.

Contact department for information to register for this course.

MUSP419N **Music Performance; Trombone**

(Perm req)

Credits: 2 Grading Method: Regular, Pass-Fail, Audit

Senior course in the major series.

Contact department for information to register for this course.

MUSP419O **Music Performance; Tuba**

(Perm req)

Credits: 2 Grading Method: Regular, Pass-Fail, Audit

Senior course in the major series.

Contact department for information to register for this course.

MUSP419P **Music Performance; Euphonium**

(Perm req)

Credits: 2 Grading Method: Regular, Pass-Fail, Audit

Senior course in the major series.

Contact department for information to register for this course.

MUSP419Q **Music Performance; Percussion**

(Perm req)

Credits: 2 Grading Method: Regular, Pass-Fail, Audit

Senior course in the major series.

Contact department for information to register for this course.

MUSP419S **Music Performance; Guitar**

(Perm req)

Credits: 2 Grading Method: Regular, Pass-Fail

Senior course in the major series.

Contact department for information to register for this course.

MUSP419T **Music Performance; Composition**

(Perm req)

Credits: 2 Grading Method: Regular, Pass-Fail, Audit

Senior course in the major series.

Contact department for information to register for this course.

MUSP419V **Music Performance; Harp**

(Perm req)

Credits: 2 Grading Method: Regular, Pass-Fail, Audit

Senior course in the major series.

Contact department for information to register for this course.

MUSP419W **Music Performance; Electronic Composition**

(Perm req)

Credits: 2 Grading Method: Regular, Pass-Fail, Audit

Senior course in the major series.

Contact department for information to register for this course.

MUSP420A **Senior Recital; Senior Recital**

(Perm req)

Credits: 4 Grading Method: Regular, Pass-Fail, Audit General Education: DSSP

Senior course in the major series. Recital required.

Contact department for information to register for this course.

MUSP420B **Senior Recital; Senior Recital**

(Perm req)

Credits: 4 Grading Method: Regular, Pass-Fail, Audit General Education: DSSP

Senior course in the major series. Recital required.

Contact department for information to register for this course.

MUSP420C **Senior Recital; Senior Recital**

(Perm req)

Credits: 4 Grading Method: Regular, Pass-Fail, Audit General Education: DSSP

Senior course in the major series. Recital required.

Contact department for information to register for this course.

MUSP420D **Senior Recital; Senior Recital**

(Perm req)

Credits: 4 Grading Method: Regular, Pass-Fail, Audit General Education: DSSP

Senior course in the major series. Recital required.

Contact department for information to register for this course.

MUSP420E **Senior Recital; Senior Recital**

(Perm req)

Credits: 4 Grading Method: Regular, Pass-Fail General Education: DSSP

Senior course in the major series. Recital required.

Contact department for information to register for this course.

MUSP420F **Senior Recital; Senior Recital**

(Perm req)

Credits: 4 | Grading Method: Regular, Pass-Fail, Audit | General Education: DSSP

Senior course in the major series. Recital required.

Contact department for information to register for this course.

MUSP420G **Senior Recital; Senior Recital**

(Perm req)

Credits: 4 | Grading Method: Regular, Pass-Fail, Audit | General Education: DSSP

Senior course in the major series. Recital required.

Contact department for information to register for this course.

MUSP420H **Senior Recital; Senior Recital**

(Perm req)

Credits: 4 | Grading Method: Regular, Pass-Fail, Audit | General Education: DSSP

Senior course in the major series. Recital required.

Contact department for information to register for this course.

MUSP420I **Senior Recital; Senior Recital**

(Perm req)

Credits: 4 | Grading Method: Regular, Pass-Fail, Audit | General Education: DSSP

Senior course in the major series. Recital required.

Contact department for information to register for this course.

MUSP420J **Senior Recital; Senior Recital**

(Perm req)

Credits: 4 | Grading Method: Regular, Pass-Fail, Audit | General Education: DSSP

Senior course in the major series. Recital required.

Contact department for information to register for this course.

MUSP420K **Senior Recital; Senior Recital**

(Perm req)

Credits: 4 | Grading Method: Regular, Pass-Fail, Audit | General Education: DSSP

Senior course in the major series. Recital required.

Contact department for information to register for this course.

MUSP420L **Senior Recital; Senior Recital**

(Perm req)

Credits: 4 Grading Method: Regular, Pass-Fail, Audit General Education: DSSP

Senior course in the major series. Recital required.

Contact department for information to register for this course.

MUSP420M **Senior Recital; Senior Recital**

(Perm req)

Credits: 4 Grading Method: Regular, Pass-Fail, Audit General Education: DSSP

Senior course in the major series. Recital required.

Contact department for information to register for this course.

MUSP420N **Senior Recital; Senior Recital**

(Perm req)

Credits: 4 Grading Method: Regular, Pass-Fail, Audit General Education: DSSP

Senior course in the major series. Recital required.

Contact department for information to register for this course.

MUSP420O **Senior Recital; Senior Recital**

(Perm req)

Credits: 4 Grading Method: Regular, Pass-Fail, Audit General Education: DSSP

Senior course in the major series. Recital required.

Contact department for information to register for this course.

MUSP420P **Senior Recital; Senior Recital**

(Perm req)

Credits: 4 Grading Method: Regular, Pass-Fail, Audit General Education: DSSP

Senior course in the major series. Recital required.

Contact department for information to register for this course.

MUSP420Q **Senior Recital; Senior Recital**

(Perm req)

Credits: 4 Grading Method: Regular, Pass-Fail, Audit General Education: DSSP

Senior course in the major series. Recital required.

Contact department for information to register for this course.

MUSP420S **Senior Recital; Senior Recital**

(Perm req)

Credits: 4 Grading Method: Regular, Pass-Fail, Audit

General Education: DSSP

Senior course in the major series. Recital required.

Contact department for information to register for this course.

MUSP420T **Senior Recital; Senior Recital**

(Perm req)

Credits: 4 Grading Method: Regular, Pass-Fail, Audit

General Education: DSSP

Senior course in the major series. Recital required.

Contact department for information to register for this course.

MUSP420V **Senior Recital; Senior Recital**

(Perm req)

Credits: 4 Grading Method: Regular, Pass-Fail, Audit

General Education: DSSP

Senior course in the major series. Recital required.

Contact department for information to register for this course.

MUSP420W **Senior Recital; Senior Recital**

(Perm req)

Credits: 4 Grading Method: Regular, Pass-Fail, Audit

General Education: DSSP

Senior course in the major series. Recital required.

Contact department for information to register for this course.

MUSP609A **Interpretation and Repertoire; Piano**

(Perm req)

Credits: 2 Grading Method: Regular, Audit, Sat-Fail

Contact department for information to register for this course.

MUSP609B **Interpretation and Repertoire; Voice**

(Perm req)

Credits: 2 Grading Method: Regular, Audit, Sat-Fail

Contact department for information to register for this course.

MUSP609C **Interpretation and Repertoire**

Credits: 2 Grading Method: Regular, Sat-Fail

Contact department for information to register for this course.

MUSP609D **Interpretation and Repertoire; Viola**

(Perm req)

Credits: 2 Grading Method: Regular, Audit, Sat-Fail

Contact department for information to register for this course.

MUSP609E **Interpretation and Repertoire; Cello**

(Perm req)

Credits: 2 Grading Method: Regular, Audit, Sat-Fail

Contact department for information to register for this course.

MUSP609F **Interpretation and Repertoire; Bass**

(Perm req)

Credits: 2 Grading Method: Regular, Audit, Sat-Fail

Contact department for information to register for this course.

MUSP609G **Interpretation and Repertoire; Flute**

(Perm req)

Credits: 2 Grading Method: Regular, Audit, Sat-Fail

Contact department for information to register for this course.

MUSP609H **Interpretation and Repertoire; Oboe**

(Perm req)

Credits: 2 Grading Method: Regular, Audit, Sat-Fail

Contact department for information to register for this course.

MUSP609I **Interpretation and Repertoire; Clarinet**

(Perm req)

Credits: 2 Grading Method: Regular, Audit, Sat-Fail

Contact department for information to register for this course.

MUSP609J **Interpretation and Repertoire; Bassoon**

(Perm req)

Credits: 2 Grading Method: Regular, Audit, Sat-Fail

Contact department for information to register for this course.

MUSP609K **Interpretation and Repertoire; Saxophone**

(Perm req) Credits: 2 Grading Method: Regular, Audit, Sat-Fail

Contact department for information to register for this course.

MUSP609L **Interpretation and Repertoire; Horn**

(Perm req) Credits: 2 Grading Method: Regular, Audit, Sat-Fail

Contact department for information to register for this course.

MUSP609M **Interpretation and Repertoire; Trumpet**

(Perm req) Credits: 2 Grading Method: Regular, Audit, Sat-Fail

Contact department for information to register for this course.

MUSP609N **Interpretation and Repertoire; Trombone**

(Perm req) Credits: 2 Grading Method: Regular, Audit, Sat-Fail

Contact department for information to register for this course.

MUSP609O **Interpretation and Repertoire; Tuba**

(Perm req) Credits: 2 Grading Method: Regular, Audit, Sat-Fail

Contact department for information to register for this course.

MUSP609P **Interpretation and Repertoire; Euphonium**

(Perm req) Credits: 2 Grading Method: Regular, Audit, Sat-Fail

Contact department for information to register for this course.

MUSP609Q **Interpretation and Repertoire; Percussion**

(Perm req) Credits: 2 Grading Method: Regular, Audit, Sat-Fail

Contact department for information to register for this course.

MUSP609S **Interpretation and Repertoire; World Instruments**

(Perm req) Credits: 2 Grading Method: Regular, Audit, Sat-Fail

Contact department for information to register for this course.

MUSP609T **Interpretation and Repertoire; Composition**

(Perm req)

Credits: 2

Grading Method: Regular, Audit, Sat-Fail

Contact department for information to register for this course.

MUSP609U **Interpretation and Repertoire; Conducting**

(Perm req)

Credits: 2

Grading Method: Regular, Audit, Sat-Fail

Contact department for information to register for this course.

MUSP609V **Interpretation and Repertoire; Harp**

(Perm req)

Credits: 2

Grading Method: Regular, Audit, Sat-Fail

Contact department for information to register for this course.

MUSP609X **Interpretation and Repertoire; Historical Instruments - Keyboard**

(Perm req)

Credits: 2

Grading Method: Regular, Audit, Sat-Fail

Contact department for information to register for this course.

MUSP610A **Graduate Music Performance; Piano**

(Perm req)

Credits: 4

Grading Method: Regular, Audit, Sat-Fail

Contact department for information to register for this course.

MUSP610B **Graduate Music Performance; Voice**

(Perm req)

Credits: 4

Grading Method: Regular, Audit, Sat-Fail

Contact department for information to register for this course.

MUSP610D **Graduate Music Performance; Viola**

(Perm req)

Credits: 4

Grading Method: Regular, Audit, Sat-Fail

Contact department for information to register for this course.

MUSP610E **Graduate Music Performance; Cello**

(Perm req)

Credits: 4

Grading Method: Regular, Audit, Sat-Fail

Contact department for information to register for this course.

MUSP610F **Graduate Music Performance; Bass**

(Perm req)

Credits: 4

Grading Method: Regular, Audit, Sat-Fail

Contact department for information to register for this course.

MUSP610G **Graduate Music Performance; Flute**

(Perm req)

Credits: 4

Grading Method: Regular, Audit, Sat-Fail

Contact department for information to register for this course.

MUSP610H **Graduate Music Performance; Oboe**

(Perm req)

Credits: 4

Grading Method: Regular, Audit, Sat-Fail

Contact department for information to register for this course.

MUSP610I **Graduate Music Performance; Clarinet**

(Perm req)

Credits: 4

Grading Method: Regular, Audit, Sat-Fail

Contact department for information to register for this course.

MUSP610J **Graduate Music Performance; Bassoon**

(Perm req)

Credits: 4

Grading Method: Regular, Audit, Sat-Fail

Contact department for information to register for this course.

MUSP610K **Graduate Music Performance; Saxophone**

(Perm req)

Credits: 4

Grading Method: Regular, Audit, Sat-Fail

Contact department for information to register for this course.

MUSP610L **Graduate Music Performance; Horn**

(Perm req)

Credits: 4

Grading Method: Regular, Audit, Sat-Fail

Contact department for information to register for this course.

MUSP610M **Graduate Music Performance; Trumpet**

(Perm req)

Credits: 4

Grading Method: Regular, Audit, Sat-Fail

Contact department for information to register for this course.

MUSP610N **Graduate Music Performance; Trombone**

(Perm req)

Credits: 4

Grading Method: Regular, Audit, Sat-Fail

Contact department for information to register for this course.

MUSP610O **Graduate Music Performance; Tuba**

(Perm req)

Credits: 4

Grading Method: Regular, Audit, Sat-Fail

Contact department for information to register for this course.

MUSP610P **Graduate Music Performance; Euphonium**

(Perm req)

Credits: 4

Grading Method: Regular, Audit, Sat-Fail

Contact department for information to register for this course.

MUSP610Q **Graduate Music Performance; Percussion**

(Perm req)

Credits: 4

Grading Method: Regular, Audit, Sat-Fail

Contact department for information to register for this course.

MUSP610S **Graduate Music Performance; Guitar**

(Perm req)

Credits: 4

Grading Method: Regular, Audit, Sat-Fail

Contact department for information to register for this course.

MUSP610T **Graduate Music Performance; Composition**

(Perm req)

Credits: 4

Grading Method: Regular, Audit, Sat-Fail

Contact department for information to register for this course.

MUSP610U **Graduate Music Performance; Conducting**

(Perm req)

Credits: 4

Grading Method: Regular, Audit, Sat-Fail

Contact department for information to register for this course.

MUSP610V **Graduate Music Performance; Harp**

(Perm req)

Credits: 4

Grading Method: Regular, Audit, Sat-Fail

Contact department for information to register for this course.

MUSP610X **Graduate Music Performance; Historical Instruments - Keyboard**

(Perm req)

Credits: 4

Grading Method: Regular, Audit, Sat-Fail

Contact department for information to register for this course.

MUSP619A **Interpretation and Repertoire; Piano**

(Perm req)

Credits: 2

Grading Method: Regular, Audit, Sat-Fail

Prerequisite: departmental audition and permission of Department Chairman. Repeatable to a maximum of 12 credits.

Contact department for information to register for this course.

MUSP619B **Interpretation and Repertoire; Voice**

(Perm req)

Credits: 2

Grading Method: Regular, Audit, Sat-Fail

Prerequisite: departmental audition and permission of Department Chairman. Repeatable to a maximum of 12 credits.

Contact department for information to register for this course.

MUSP619C **Interpretation and Repertoire; Violin**

(Perm req)

Credits: 2

Grading Method: Regular, Audit, Sat-Fail

Prerequisite: departmental audition and permission of Department Chairman. Repeatable to a maximum of 12 credits.

Contact department for information to register for this course.

MUSP619D **Interpretation and Repertoire; Viola**

(Perm req)

Credits: 2

Grading Method: Regular, Audit, Sat-Fail

Prerequisite: departmental audition and permission of Department Chairman. Repeatable to a maximum of 12 credits.

Contact department for information to register for this course.

MUSP619E **Interpretation and Repertoire; Cello**

(Perm req)

Credits: 2

Grading Method: Regular, Audit, Sat-Fail

Prerequisite: departmental audition and permission of Department Chairman. Repeatable to a maximum of 12 credits.

Contact department for information to register for this course.

MUSP619F **Interpretation and Repertoire; Bass**

(Perm req)

Credits: 2

Grading Method: Regular, Audit, Sat-Fail

Prerequisite: departmental audition and permission of Department Chairman. Repeatable to a maximum of 12 credits.

Contact department for information to register for this course.

MUSP619G **Interpretation and Repertoire; Flute**

(Perm req)

Credits: 2

Grading Method: Regular, Audit, Sat-Fail

Prerequisite: departmental audition and permission of Department Chairman. Repeatable to a maximum of 12 credits.

Contact department for information to register for this course.

MUSP619H **Interpretation and Repertoire; Oboe**

(Perm req)

Credits: 2

Grading Method: Regular, Audit, Sat-Fail

Prerequisite: departmental audition and permission of Department Chairman. Repeatable to a maximum of 12 credits.

Contact department for information to register for this course.

MUSP619I **Interpretation and Repertoire; Clarinet**

(Perm req)

Credits: 2

Grading Method: Regular, Audit, Sat-Fail

Prerequisite: departmental audition and permission of Department Chairman. Repeatable to a maximum of 12 credits.

Contact department for information to register for this course.

MUSP619J **Interpretation and Repertoire; Bassoon**

(Perm req)

Credits: 2

Grading Method: Regular, Audit, Sat-Fail

Prerequisite: departmental audition and permission of Department Chairman. Repeatable to a maximum of 12 credits.

Contact department for information to register for this course.

MUSP619K **Interpretation and Repertoire; Saxophone**

(Perm req)

Credits: 2

Grading Method: Regular, Audit, Sat-Fail

Prerequisite: departmental audition and permission of Department Chairman. Repeatable to a maximum of 12 credits.

Contact department for information to register for this course.

MUSP619L **Interpretation and Repertoire; Horn**

(Perm req)

Credits: 2

Grading Method: Regular, Audit, Sat-Fail

Prerequisite: departmental audition and permission of Department Chairman. Repeatable to a maximum of 12 credits.

Contact department for information to register for this course.

MUSP619M **Interpretation and Repertoire; Trumpet**

(Perm req)

Credits: 2

Grading Method: Regular, Audit, Sat-Fail

Prerequisite: departmental audition and permission of Department Chairman. Repeatable to a maximum of 12 credits.

Contact department for information to register for this course.

MUSP619N **Interpretation and Repertoire; Trombone**

(Perm req)

Credits: 2

Grading Method: Regular, Audit, Sat-Fail

Prerequisite: departmental audition and permission of Department Chairman. Repeatable to a maximum of 12 credits.

Contact department for information to register for this course.

MUSP619O **Interpretation and Repertoire; Tuba**

(Perm req)

Credits: 2

Grading Method: Regular, Audit, Sat-Fail

Prerequisite: departmental audition and permission of Department Chairman. Repeatable to a maximum of 12 credits.

Contact department for information to register for this course.

MUSP619P **Interpretation and Repertoire; Euphonium**

(Perm req)

Credits: 2 Grading Method: Regular, Audit, Sat-Fail

Prerequisite: departmental audition and permission of Department Chairman. Repeatable to a maximum of 12 credits.

Contact department for information to register for this course.

MUSP619Q **Interpretation and Repertoire; Percussion**

(Perm req)

Credits: 2 Grading Method: Regular, Audit, Sat-Fail

Prerequisite: departmental audition and permission of Department Chairman. Repeatable to a maximum of 12 credits.

Contact department for information to register for this course.

MUSP619S **Interpretation and Repertoire; Guitar**

(Perm req)

Credits: 2 Grading Method: Regular, Audit, Sat-Fail

Prerequisite: departmental audition and permission of Department Chairman. Repeatable to a maximum of 12 credits.

Contact department for information to register for this course.

MUSP619T **Interpretation and Repertoire; Composition**

(Perm req)

Credits: 2 Grading Method: Regular, Audit, Sat-Fail

Prerequisite: departmental audition and permission of Department Chairman. Repeatable to a maximum of 12 credits.

Contact department for information to register for this course.

MUSP619U **Interpretation and Repertoire; Conducting**

(Perm req)

Credits: 2 Grading Method: Regular, Audit, Sat-Fail

Prerequisite: departmental audition and permission of Department Chairman. Repeatable to a maximum of 12 credits.

Contact department for information to register for this course.

MUSP619V **Interpretation and Repertoire; Harp**

(Perm req)

Credits: 2 Grading Method: Regular, Audit, Sat-Fail

Prerequisite: departmental audition and permission of Department Chairman. Repeatable to a maximum of 12 credits.

Contact department for information to register for this course.

MUSP619W **Interpretation and Repertoire; Electronic Composition**

(Perm req)

Credits: 2-4 Grading Method: Regular, Audit, Sat-Fail

Prerequisite: departmental audition and permission of Department Chairman. Repeatable to a maximum of 12 credits.

Contact department for information to register for this course.

MUSP619X **Interpretation and Repertoire; Opera**

(Perm req)

Credits: 2 Grading Method: Regular, Sat-Fail

Prerequisite: departmental audition and permission of Department Chairman. Repeatable to a maximum of 12 credits.

Contact department for information to register for this course.

MUSP620A **Graduate Music Performance; Piano**

(Perm req)

Credits: 4 Grading Method: Regular, Audit, Sat-Fail

Prerequisite: MUSP 619 and permission of Department Chairman. Recital course in the major series.

Contact department for information to register for this course.

MUSP620B **Graduate Music Performance; Voice**

(Perm req)

Credits: 4 Grading Method: Regular, Audit, Sat-Fail

Prerequisite: MUSP 619 and permission of Department Chairman. Recital course in the major series.

Contact department for information to register for this course.

MUSP620C **Graduate Music Performance; Violin**

(Perm req) Credits: 4 Grading Method: Regular, Audit, Sat-Fail

Prerequisite: MUSP 619 and permission of Department Chairman. Recital course in the major series.

Contact department for information to register for this course.

MUSP620D **Graduate Music Performance; Viola**

(Perm req) Credits: 4 Grading Method: Regular, Audit, Sat-Fail

Prerequisite: MUSP 619 and permission of Department Chairman. Recital course in the major series.

Contact department for information to register for this course.

MUSP620E **Graduate Music Performance; Cello**

(Perm req) Credits: 4 Grading Method: Regular, Audit, Sat-Fail

Prerequisite: MUSP 619 and permission of Department Chairman. Recital course in the major series.

Contact department for information to register for this course.

MUSP620F **Graduate Music Performance; Bass**

(Perm req) Credits: 4 Grading Method: Regular, Audit, Sat-Fail

Prerequisite: MUSP 619 and permission of Department Chairman. Recital course in the major series.

Contact department for information to register for this course.

MUSP620G **Graduate Music Performance; Flute**

(Perm req) Credits: 4 Grading Method: Regular, Audit, Sat-Fail

Prerequisite: MUSP 619 and permission of Department Chairman. Recital course in the major series.

Contact department for information to register for this course.

MUSP620H **Graduate Music Performance; Oboe**

(Perm req) Credits: 4 Grading Method: Regular, Audit, Sat-Fail

Prerequisite: MUSP 619 and permission of Department Chairman. Recital course in the major series.

Contact department for information to register for this course.

MUSP620I **Graduate Music Performance; Clarinet**

(Perm req) Credits: 4 Grading Method: Regular, Audit, Sat-Fail

Prerequisite: MUSP 619 and permission of Department Chairman. Recital course in the major series.

Contact department for information to register for this course.

MUSP620J **Graduate Music Performance; Bassoon**

(Perm req) Credits: 4 Grading Method: Regular, Audit, Sat-Fail

Prerequisite: MUSP 619 and permission of Department Chairman. Recital course in the major series.

Contact department for information to register for this course.

MUSP620K **Graduate Music Performance; Saxophone**

(Perm req) Credits: 4 Grading Method: Regular, Audit, Sat-Fail

Prerequisite: MUSP 619 and permission of Department Chairman. Recital course in the major series.

Contact department for information to register for this course.

MUSP620L **Graduate Music Performance; Horn**

(Perm req) Credits: 4 Grading Method: Regular, Audit, Sat-Fail

Prerequisite: MUSP 619 and permission of Department Chairman. Recital course in the major series.

Contact department for information to register for this course.

MUSP620M **Graduate Music Performance; Trumpet**

(Perm req) Credits: 4 Grading Method: Regular, Audit, Sat-Fail

Prerequisite: MUSP 619 and permission of Department Chairman. Recital course in the major series.

Contact department for information to register for this course.

MUSP620N **Graduate Music Performance; Trombone**

(Perm req) Credits: 4 Grading Method: Regular, Audit, Sat-Fail

Prerequisite: MUSP 619 and permission of Department Chairman. Recital course in the major series.

Contact department for information to register for this course.

MUSP620O **Graduate Music Performance; Tuba**

(Perm req) Credits: 4 Grading Method: Regular, Audit, Sat-Fail

Prerequisite: MUSP 619 and permission of Department Chairman. Recital course in the major series.

Contact department for information to register for this course.

MUSP620P **Graduate Music Performance; Euphonium**

(Perm req) Credits: 4 Grading Method: Regular, Audit, Sat-Fail

Prerequisite: MUSP 619 and permission of Department Chairman. Recital course in the major series.

Contact department for information to register for this course.

MUSP620Q **Graduate Music Performance; Percussion**

(Perm req) Credits: 4 Grading Method: Regular, Audit, Sat-Fail

Prerequisite: MUSP 619 and permission of Department Chairman. Recital course in the major series.

Contact department for information to register for this course.

MUSP620S **Graduate Music Performance; Guitar**

(Perm req) Credits: 4 Grading Method: Regular, Audit, Sat-Fail

Prerequisite: MUSP 619 and permission of Department Chairman. Recital course in the major series.

Contact department for information to register for this course.

MUSP620T **Graduate Music Performance; Composition**

(Perm req) Credits: 4 Grading Method: Regular, Audit, Sat-Fail

Prerequisite: MUSP 619 and permission of Department Chairman. Recital course in the major series.

Contact department for information to register for this course.

MUSP620U **Graduate Music Performance; Conducting**

(Perm req) Credits: 4 Grading Method: Regular, Audit, Sat-Fail

Prerequisite: MUSP 619 and permission of Department Chairman. Recital course in the major series.

Contact department for information to register for this course.

MUSP620V **Graduate Music Performance; Harp**

(Perm req)

Credits: 4

Grading Method: Regular, Audit, Sat-Fail

Prerequisite: MUSP 619 and permission of Department Chairman. Recital course in the major series.

Contact department for information to register for this course.

MUSP620W **Graduate Music Performance; Electronic Composition**

(Perm req)

Credits: 4

Grading Method: Regular, Audit, Sat-Fail

Prerequisite: MUSP 619 and permission of Department Chairman. Recital course in the major series.

Contact department for information to register for this course.

MUSP620X **Graduate Music Performance; Opera**

(Perm req)

Credits: 4

Grading Method: Regular, Sat-Fail

Prerequisite: MUSP 619 and permission of Department Chairman. Recital course in the major series.

Contact department for information to register for this course.

MUSP621A **Interpretation, Repertoire, and Performance**

(Perm req)

Credits: 4

Grading Method: Regular, Audit, Sat-Fail

Prerequisite: MUSP619. Corequisite: MUSC758. Restriction: Permission of ARHU-School of Music department.

Private music instruction in preparation for public performance.

Contact department for information to register for this course.

MUSP621U **Interpretation, Repertoire, and Performance**

(Perm req)

Credits: 2

Grading Method: Regular, Sat-Fail

Prerequisite: MUSP619. Corequisite: MUSC758. Restriction: Permission of ARHU-School of Music department.

Private music instruction in preparation for public performance.

Contact department for information to register for this course.

MUSP679 **Practicum**

(Perm req)

Credits: 1

Grading Method: Regular, Sat-Fail

Private individual instruction on a secondary instrument.

Contact department for information to register for this course.

MUSP719A **Interpretation and Repertoire; Piano**

(Perm req)

Credits: 2 Grading Method: Regular, Audit, Sat-Fail

Prerequisite: departmental audition, admission to doctoral program in the major series and permission of department chairman. Repeatable to a maximum of 12 credits.

Contact department for information to register for this course.

MUSP719B **Interpretation and Repertoire; Voice**

(Perm req)

Credits: 2 Grading Method: Regular, Audit, Sat-Fail

Prerequisite: departmental audition, admission to doctoral program in the major series and permission of department chairman. Repeatable to a maximum of 12 credits.

Contact department for information to register for this course.

MUSP719C **Interpretation and Repertoire; Violin**

(Perm req)

Credits: 2 Grading Method: Regular, Audit, Sat-Fail

Prerequisite: departmental audition, admission to doctoral program in the major series and permission of department chairman. Repeatable to a maximum of 12 credits.

Contact department for information to register for this course.

MUSP719D **Interpretation and Repertoire; Viola**

(Perm req)

Credits: 2 Grading Method: Regular, Audit, Sat-Fail

Prerequisite: departmental audition, admission to doctoral program in the major series and permission of department chairman. Repeatable to a maximum of 12 credits.

Contact department for information to register for this course.

MUSP719E **Interpretation and Repertoire; Cello**

(Perm req)

Credits: 2 Grading Method: Regular, Audit, Sat-Fail

Prerequisite: departmental audition, admission to doctoral program in the major series and permission of department chairman. Repeatable to a maximum of 12 credits.

Contact department for information to register for this course.

MUSP719F **Interpretation and Repertoire; Bass**

(Perm req)

Credits: 2

Grading Method: Regular, Audit, Sat-Fail

Prerequisite: departmental audition, admission to doctoral program in the major series and permission of department chairman. Repeatable to a maximum of 12 credits.

Contact department for information to register for this course.

MUSP719G **Interpretation and Repertoire; Flute**

(Perm req)

Credits: 2

Grading Method: Regular, Audit, Sat-Fail

Prerequisite: departmental audition, admission to doctoral program in the major series and permission of department chairman. Repeatable to a maximum of 12 credits.

Contact department for information to register for this course.

MUSP719H **Interpretation and Repertoire; Oboe**

(Perm req)

Credits: 2

Grading Method: Regular, Audit, Sat-Fail

Prerequisite: departmental audition, admission to doctoral program in the major series and permission of department chairman. Repeatable to a maximum of 12 credits.

Contact department for information to register for this course.

MUSP719I **Interpretation and Repertoire; Clarinet**

(Perm req)

Credits: 2

Grading Method: Regular, Audit, Sat-Fail

Prerequisite: departmental audition, admission to doctoral program in the major series and permission of department chairman. Repeatable to a maximum of 12 credits.

Contact department for information to register for this course.

MUSP719J **Interpretation and Repertoire; Bassoon**

(Perm req)

Credits: 2

Grading Method: Regular, Audit, Sat-Fail

Prerequisite: departmental audition, admission to doctoral program in the major series and permission of department chairman. Repeatable to a maximum of 12 credits.

Contact department for information to register for this course.

MUSP719K **Interpretation and Repertoire; Saxophone**

(Perm req)

Credits: 2

Grading Method: Regular, Audit, Sat-Fail

Prerequisite: departmental audition, admission to doctoral program in the major series and permission of department chairman. Repeatable to a maximum of 12 credits.

Contact department for information to register for this course.

MUSP719L **Interpretation and Repertoire; Horn**

(Perm req)

Credits: 2

Grading Method: Regular, Audit, Sat-Fail

Prerequisite: departmental audition, admission to doctoral program in the major series and permission of department chairman. Repeatable to a maximum of 12 credits.

Contact department for information to register for this course.

MUSP719M **Interpretation and Repertoire; Trumpet**

(Perm req)

Credits: 2

Grading Method: Regular, Audit, Sat-Fail

Prerequisite: departmental audition, admission to doctoral program in the major series and permission of department chairman. Repeatable to a maximum of 12 credits.

Contact department for information to register for this course.

MUSP719N **Interpretation and Repertoire; Trombone**

(Perm req)

Credits: 2

Grading Method: Regular, Audit, Sat-Fail

Prerequisite: departmental audition, admission to doctoral program in the major series and permission of department chairman. Repeatable to a maximum of 12 credits.

Contact department for information to register for this course.

MUSP719O **Interpretation and Repertoire; Tuba**

(Perm req)

Credits: 2

Grading Method: Regular, Audit, Sat-Fail

Prerequisite: departmental audition, admission to doctoral program in the major series and permission of department chairman. Repeatable to a maximum of 12 credits.

Contact department for information to register for this course.

MUSP719P **Interpretation and Repertoire; Euphonium**

(Perm req)

Credits: 2

Grading Method: Regular, Audit, Sat-Fail

Prerequisite: departmental audition, admission to doctoral program in the major series and permission of department chairman. Repeatable to a maximum of 12 credits.

Contact department for information to register for this course.

MUSP719Q **Interpretation and Repertoire; Percussion**

(Perm req)

Credits: 2 Grading Method: Regular, Audit, Sat-Fail

Prerequisite: departmental audition, admission to doctoral program in the major series and permission of department chairman. Repeatable to a maximum of 12 credits.

Contact department for information to register for this course.

MUSP719R **Interpretation and Repertoire; Organ/Harpsichord**

Credits: 2 Grading Method: Regular, Audit, Sat-Fail

Prerequisite: departmental audition, admission to doctoral program in the major series and permission of department chairman. Repeatable to a maximum of 12 credits.

Contact department for information to register for this course.

MUSP719S **Interpretation and Repertoire; Guitar**

(Perm req)

Credits: 2 Grading Method: Regular, Audit, Sat-Fail

Prerequisite: departmental audition, admission to doctoral program in the major series and permission of department chairman. Repeatable to a maximum of 12 credits.

Contact department for information to register for this course.

MUSP719T **Interpretation and Repertoire; Composition**

(Perm req)

Credits: 2 Grading Method: Regular, Audit, Sat-Fail

Prerequisite: departmental audition, admission to doctoral program in the major series and permission of department chairman. Repeatable to a maximum of 12 credits.

Contact department for information to register for this course.

MUSP719U **Interpretation and Repertoire; Conducting**

(Perm req)

Credits: 2 Grading Method: Regular, Audit, Sat-Fail

Prerequisite: departmental audition, admission to doctoral program in the major series and permission of department chairman. Repeatable to a maximum of 12 credits.

Contact department for information to register for this course.

MUSP719V **Interpretation and Repertoire**

(Perm req)

Credits: 2 Grading Method: Regular, Audit, Sat-Fail

Prerequisite: departmental audition, admission to doctoral program in the major series and permission of department chairman. Repeatable to a maximum of 12 credits.

Contact department for information to register for this course.

MUSP719W **Interpretation and Repertoire; Electronic Composition**

(Perm req)

Credits: 2-4 Grading Method: Regular, Audit, Sat-Fail

Prerequisite: departmental audition, admission to doctoral program in the major series and permission of department chairman. Repeatable to a maximum of 12 credits.

Contact department for information to register for this course.

MUSP719X **Interpretation and Repertoire**

(Perm req)

Credits: 2 Grading Method: Regular, Audit, Sat-Fail

Prerequisite: departmental audition, admission to doctoral program in the major series and permission of department chairman. Repeatable to a maximum of 12 credits.

Contact department for information to register for this course.

MUSP815A **Interpretation, Performance, and Pedagogy; Piano**

(Perm req)

Credits: 4 Grading Method: Regular, Audit, Sat-Fail

A seminar in pedagogy and the pedagogical literature for the doctoral performer, with advanced instruction at the instrument, covering appropriate compositions. Required of all candidates for the D.M.A. Degree in literature-performance. Prerequisite: doctoral standing in performance and permission of department chairman. Recital course.

Contact department for information to register for this course.

MUSP815B **Interpretation, Performance, and Pedagogy; Voice**

(Perm req)

Credits: 4 Grading Method: Regular, Audit, Sat-Fail

A seminar in pedagogy and the pedagogical literature for the doctoral performer, with advanced instruction at the instrument, covering appropriate compositions. Required of all candidates for the D.M.A. Degree in literature-performance. Prerequisite: doctoral standing in performance and permission of department chairman. Recital course.

Contact department for information to register for this course.

MUSP815C **Interpretation, Performance, and Pedagogy; Violin**

(Perm req)

Credits: 4

Grading Method: Regular,
Audit, Sat-Fail

A seminar in pedagogy and the pedagogical literature for the doctoral performer, with advanced instruction at the instrument, covering appropriate compositions. Required of all candidates for the D.M.A. Degree in literature-performance. Prerequisite: doctoral standing in performance and permission of department chairman. Recital course.

Contact department for information to register for this course.

MUSP815D **Interpretation, Performance, and Pedagogy; Viola**

(Perm req)

Credits: 4

Grading Method: Regular,
Audit, Sat-Fail

A seminar in pedagogy and the pedagogical literature for the doctoral performer, with advanced instruction at the instrument, covering appropriate compositions. Required of all candidates for the D.M.A. Degree in literature-performance. Prerequisite: doctoral standing in performance and permission of department chairman. Recital course.

Contact department for information to register for this course.

MUSP815E **Interpretation, Performance, and Pedagogy; Cello**

(Perm req)

Credits: 4

Grading Method: Regular,
Audit, Sat-Fail

A seminar in pedagogy and the pedagogical literature for the doctoral performer, with advanced instruction at the instrument, covering appropriate compositions. Required of all candidates for the D.M.A. Degree in literature-performance. Prerequisite: doctoral standing in performance and permission of department chairman. Recital course.

Contact department for information to register for this course.

MUSP815F **Interpretation, Performance, and Pedagogy; Bass**

(Perm req)

Credits: 4

Grading Method: Regular,
Audit, Sat-Fail

A seminar in pedagogy and the pedagogical literature for the doctoral performer, with advanced instruction at the instrument, covering appropriate compositions. Required of all candidates for the D.M.A. Degree in literature-performance. Prerequisite: doctoral standing in performance and permission of department chairman. Recital course.

Contact department for information to register for this course.

MUSP815G **Interpretation, Performance, and Pedagogy; Flute**

(Perm req)

Credits: 4

Grading Method: Regular,
Audit, Sat-Fail

A seminar in pedagogy and the pedagogical literature for the doctoral performer, with advanced instruction at the instrument, covering appropriate compositions. Required of all candidates for the D.M.A. Degree in literature-performance. Prerequisite: doctoral standing in performance and permission of department chairman. Recital course.

Contact department for information to register for this course.

MUSP815H **Interpretation, Performance, and Pedagogy; Oboe**

(Perm req)

Credits: 4

Grading Method: Regular,
Audit, Sat-Fail

A seminar in pedagogy and the pedagogical literature for the doctoral performer, with advanced instruction at the instrument, covering appropriate compositions. Required of all candidates for the D.M.A. Degree in literature-performance. Prerequisite: doctoral standing in performance and permission of department chairman. Recital course.

Contact department for information to register for this course.

MUSP815I **Interpretation, Performance, and Pedagogy; Clarinet**

(Perm req)

Credits: 4

Grading Method: Regular,
Audit, Sat-Fail

A seminar in pedagogy and the pedagogical literature for the doctoral performer, with advanced instruction at the instrument, covering appropriate compositions. Required of all candidates for the D.M.A. Degree in literature-performance. Prerequisite: doctoral standing in performance and permission of department chairman. Recital course.

Contact department for information to register for this course.

MUSP815J **Interpretation, Performance, and Pedagogy; Bassoon**

(Perm req)

Credits: 4

Grading Method: Regular,
Audit, Sat-Fail

A seminar in pedagogy and the pedagogical literature for the doctoral performer, with advanced instruction at the instrument, covering appropriate compositions. Required of all candidates for the D.M.A. Degree in literature-performance. Prerequisite: doctoral standing in performance and permission of department chairman. Recital course.

Contact department for information to register for this course.

MUSP815K **Interpretation, Performance, and Pedagogy; Saxophone**

(Perm req)

Credits: 4

Grading Method: Regular,
Audit, Sat-Fail

A seminar in pedagogy and the pedagogical literature for the doctoral performer, with advanced instruction at the instrument, covering appropriate compositions. Required of all candidates for the D.M.A. Degree in literature-performance. Prerequisite: doctoral standing in performance and permission of department chairman. Recital course.

Contact department for information to register for this course.

MUSP815L **Interpretation, Performance, and Pedagogy; Horn**

(Perm req)

Credits: 4

Grading Method: Regular,
Audit, Sat-Fail

A seminar in pedagogy and the pedagogical literature for the doctoral performer, with advanced instruction at the instrument, covering appropriate compositions. Required of all candidates for the D.M.A. Degree in literature-performance. Prerequisite: doctoral standing in performance and permission of department chairman. Recital course.

Contact department for information to register for this course.

MUSP815M **Interpretation, Performance, and Pedagogy; Trumpet**

(Perm req)

Credits: 4

Grading Method: Regular,
Audit, Sat-Fail

A seminar in pedagogy and the pedagogical literature for the doctoral performer, with advanced instruction at the instrument, covering appropriate compositions. Required of all candidates for the D.M.A. Degree in literature-performance. Prerequisite: doctoral standing in performance and permission of department chairman. Recital course.

Contact department for information to register for this course.

MUSP815N **Interpretation, Performance, and Pedagogy; Trombone**

(Perm req)

Credits: 4

Grading Method: Regular,
Audit, Sat-Fail

A seminar in pedagogy and the pedagogical literature for the doctoral performer, with advanced instruction at the instrument, covering appropriate compositions. Required of all candidates for the D.M.A. Degree in literature-performance. Prerequisite: doctoral standing in performance and permission of department chairman. Recital course.

Contact department for information to register for this course.

MUSP815O **Interpretation, Performance, and Pedagogy; Tuba**

(Perm req)

Credits: 4

Grading Method: Regular, Audit, Sat-Fail

A seminar in pedagogy and the pedagogical literature for the doctoral performer, with advanced instruction at the instrument, covering appropriate compositions. Required of all candidates for the D.M.A. Degree in literature-performance. Prerequisite: doctoral standing in performance and permission of department chairman. Recital course.

Contact department for information to register for this course.

MUSP815P **Interpretation, Performance, and Pedagogy; Euphonium**

(Perm req)

Credits: 4

Grading Method: Regular, Sat-Fail

A seminar in pedagogy and the pedagogical literature for the doctoral performer, with advanced instruction at the instrument, covering appropriate compositions. Required of all candidates for the D.M.A. Degree in literature-performance. Prerequisite: doctoral standing in performance and permission of department chairman. Recital course.

Contact department for information to register for this course.

MUSP815Q **Interpretation, Performance, and Pedagogy; Percussion**

(Perm req)

Credits: 4

Grading Method: Regular, Sat-Fail

A seminar in pedagogy and the pedagogical literature for the doctoral performer, with advanced instruction at the instrument, covering appropriate compositions. Required of all candidates for the D.M.A. Degree in literature-performance. Prerequisite: doctoral standing in performance and permission of department chairman. Recital course.

Contact department for information to register for this course.

MUSP815R **Interpretation, Performance, and Pedagogy; Organ/Harpsichord**

Credits: 4

Grading Method: Regular, Audit, Sat-Fail

A seminar in pedagogy and the pedagogical literature for the doctoral performer, with advanced instruction at the instrument, covering appropriate compositions. Required of all candidates for the D.M.A. Degree in literature-performance. Prerequisite: doctoral standing in performance and permission of department chairman. Recital course.

Contact department for information to register for this course.

MUSP815T **Interpretation, Performance, and Pedagogy; Composition**

(Perm req)

Credits: 4

Grading Method: Regular, Sat-Fail

A seminar in pedagogy and the pedagogical literature for the doctoral performer, with advanced instruction at the instrument, covering appropriate compositions. Required of all candidates for the D.M.A. Degree in literature-performance. Prerequisite: doctoral standing in performance and permission of department chairman. Recital course.

Contact department for information to register for this course.

MUSP815U **Interpretation, Performance, and Pedagogy; Conducting**

(Perm req)

Credits: 4

Grading Method: Regular, Sat-Fail

A seminar in pedagogy and the pedagogical literature for the doctoral performer, with advanced instruction at the instrument, covering appropriate compositions. Required of all candidates for the D.M.A. Degree in literature-performance. Prerequisite: doctoral standing in performance and permission of department chairman. Recital course.

Contact department for information to register for this course.

MUSP815V **Interpretation, Performance, and Pedagogy; Harp**

(Perm req)

Credits: 4

Grading Method: Regular, Sat-Fail

A seminar in pedagogy and the pedagogical literature for the doctoral performer, with advanced instruction at the instrument, covering appropriate compositions. Required of all candidates for the D.M.A. Degree in literature-performance. Prerequisite: doctoral standing in performance and permission of department chairman. Recital course.

Contact department for information to register for this course.

MUSP815W **Interpretation, Performance, and Pedagogy; Electronic Composition**

(Perm req)

Credits: 4

Grading Method: Regular, Sat-Fail

A seminar in pedagogy and the pedagogical literature for the doctoral performer, with advanced instruction at the instrument, covering appropriate compositions. Required of all candidates for the D.M.A. Degree in literature-performance. Prerequisite: doctoral standing in performance and permission of department chairman. Recital course.

Contact department for information to register for this course.

MUSP816A **Interpretation, Performance, and Pedagogy; Piano**

(Perm req)

Credits: 4 Grading Method: Regular, Sat-Fail

Recital course. Prerequisite: MUSP 815 and permission of Department Chairman.

Contact department for information to register for this course.

MUSP816B **Interpretation, Performance, and Pedagogy; Voice**

(Perm req)

Credits: 4 Grading Method: Regular, Sat-Fail

Recital course. Prerequisite: MUSP 815 and permission of Department Chairman.

Contact department for information to register for this course.

MUSP816C **Interpretation, Performance, and Pedagogy; Violin**

(Perm req)

Credits: 4 Grading Method: Regular, Sat-Fail

Recital course. Prerequisite: MUSP 815 and permission of Department Chairman.

Contact department for information to register for this course.

MUSP816D **Interpretation, Performance, and Pedagogy; Viola**

(Perm req)

Credits: 4 Grading Method: Regular, Sat-Fail

Recital course. Prerequisite: MUSP 815 and permission of Department Chairman.

Contact department for information to register for this course.

MUSP816E **Interpretation, Performance, and Pedagogy; Cello**

(Perm req)

Credits: 4 Grading Method: Regular, Sat-Fail

Recital course. Prerequisite: MUSP 815 and permission of Department Chairman.

Contact department for information to register for this course.

MUSP816F **Interpretation, Performance, and Pedagogy; Bass**

(Perm req)

Credits: 4

Grading Method: Regular, Sat-Fail

Recital course. Prerequisite: MUSP 815 and permission of Department Chairman.

Contact department for information to register for this course.

MUSP816G **Interpretation, Performance, and Pedagogy; Flute**

(Perm req)

Credits: 4

Grading Method: Regular, Sat-Fail

Recital course. Prerequisite: MUSP 815 and permission of Department Chairman.

Contact department for information to register for this course.

MUSP816H **Interpretation, Performance, and Pedagogy; Oboe**

(Perm req)

Credits: 4

Grading Method: Regular, Sat-Fail

Recital course. Prerequisite: MUSP 815 and permission of Department Chairman.

Contact department for information to register for this course.

MUSP816I **Interpretation, Performance, and Pedagogy; Clarinet**

(Perm req)

Credits: 4

Grading Method: Regular, Sat-Fail

Recital course. Prerequisite: MUSP 815 and permission of Department Chairman.

Contact department for information to register for this course.

MUSP816J **Interpretation, Performance, and Pedagogy; Bassoon**

(Perm req)

Credits: 4

Grading Method: Regular, Sat-Fail

Recital course. Prerequisite: MUSP 815 and permission of Department Chairman.

Contact department for information to register for this course.

MUSP816K **Interpretation, Performance, and Pedagogy; Saxophone**

(Perm req)

Credits: 4

Grading Method: Regular, Sat-Fail

Recital course. Prerequisite: MUSP 815 and permission of Department Chairman.

Contact department for information to register for this course.

MUSP816L **Interpretation, Performance, and Pedagogy; Horn**

(Perm req)

Credits: 4

Grading Method: Regular, Sat-Fail

Recital course. Prerequisite: MUSP 815 and permission of Department Chairman.

Contact department for information to register for this course.

MUSP816M **Interpretation, Performance, and Pedagogy; Trumpet**

(Perm req)

Credits: 4

Grading Method: Regular, Sat-Fail

Recital course. Prerequisite: MUSP 815 and permission of Department Chairman.

Contact department for information to register for this course.

MUSP816N **Interpretation, Performance, and Pedagogy; Trombone**

(Perm req)

Credits: 4

Grading Method: Regular, Sat-Fail

Recital course. Prerequisite: MUSP 815 and permission of Department Chairman.

Contact department for information to register for this course.

MUSP816O **Interpretation, Performance, and Pedagogy; Tuba**

(Perm req)

Credits: 4

Grading Method: Regular, Sat-Fail

Recital course. Prerequisite: MUSP 815 and permission of Department Chairman.

Contact department for information to register for this course.

MUSP816P **Interpretation, Performance, and Pedagogy; Euphonium**

(Perm req)

Credits: 4

Grading Method: Regular, Sat-Fail

Recital course. Prerequisite: MUSP 815 and permission of Department Chairman.

Contact department for information to register for this course.

MUSP816Q **Interpretation, Performance, and Pedagogy; Percussion**

(Perm req)

Credits: 4

Grading Method: Regular, Sat-Fail

Recital course. Prerequisite: MUSP 815 and permission of Department Chairman.

Contact department for information to register for this course.

MUSP816T **Interpretation, Performance, and Pedagogy; Composition**

(Perm req)

Credits: 4

Grading Method: Regular, Sat-Fail

Recital course. Prerequisite: MUSP 815 and permission of Department Chairman.

Contact department for information to register for this course.

MUSP816U **Interpretation, Performance, and Pedagogy; Conducting**

(Perm req)

Credits: 4

Grading Method: Regular, Sat-Fail

Recital course. Prerequisite: MUSP 815 and permission of Department Chairman.

Contact department for information to register for this course.

MUSP816V **Interpretation, Performance, and Pedagogy; Harp**

(Perm req)

Credits: 4

Grading Method: Regular, Audit, Sat-Fail

Recital course. Prerequisite: MUSP 815 and permission of Department Chairman.

Contact department for information to register for this course.

MUSP816W **Interpretation, Performance, and Pedagogy; Electronic Composition**

(Perm req)

Credits: 4

Grading Method: Regular, Sat-Fail

Recital course. Prerequisite: MUSP 815 and permission of Department Chairman.

Contact department for information to register for this course.

MUSP817A **Interpretation, Performance, and Pedagogy; Piano**

(Perm req)

Credits: 4

Grading Method: Regular, Sat-Fail

Recital course. Prerequisite: MUSP 816 and permission of Department Chairman.

Contact department for information to register for this course.

MUSP817B **Interpretation, Performance, and Pedagogy; Voice**

(Perm req)

Credits: 4

Grading Method: Regular, Sat-Fail

Recital course. Prerequisite: MUSP 816 and permission of Department Chairman.

Contact department for information to register for this course.

MUSP817C **Interpretation, Performance, and Pedagogy; Violin**

(Perm req)

Credits: 4

Grading Method: Regular, Sat-Fail

Recital course. Prerequisite: MUSP 816 and permission of Department Chairman.

Contact department for information to register for this course.

MUSP817D **Interpretation, Performance, and Pedagogy; Viola**

(Perm req)

Credits: 4

Grading Method: Regular, Sat-Fail

Recital course. Prerequisite: MUSP 816 and permission of Department Chairman.

Contact department for information to register for this course.

MUSP817E **Interpretation, Performance, and Pedagogy; Cello**

(Perm req)

Credits: 4

Grading Method: Regular, Sat-Fail

Recital course. Prerequisite: MUSP 816 and permission of Department Chairman.

Contact department for information to register for this course.

MUSP817F **Interpretation, Performance, and Pedagogy; Bass**

(Perm req)

Credits: 4

Grading Method: Regular, Sat-Fail

Recital course. Prerequisite: MUSP 816 and permission of Department Chairman.

Contact department for information to register for this course.

MUSP817G **Interpretation, Performance, and Pedagogy; Flute**

(Perm req)

Credits: 4

Grading Method: Regular, Sat-Fail

Recital course. Prerequisite: MUSP 816 and permission of Department Chairman.

Contact department for information to register for this course.

MUSP817H **Interpretation, Performance, and Pedagogy; Oboe**

(Perm req)

Credits: 4

Grading Method: Regular, Sat-Fail

Recital course. Prerequisite: MUSP 816 and permission of Department Chairman.

Contact department for information to register for this course.

MUSP817I **Interpretation, Performance, and Pedagogy; Clarinet**

(Perm req) Credits: 4 Grading Method: Regular, Sat-Fail

Recital course. Prerequisite: MUSP 816 and permission of Department Chairman.

Contact department for information to register for this course.

MUSP817J **Interpretation, Performance, and Pedagogy; Bassoon**

(Perm req) Credits: 4 Grading Method: Regular, Sat-Fail

Recital course. Prerequisite: MUSP 816 and permission of Department Chairman.

Contact department for information to register for this course.

MUSP817K **Interpretation, Performance, and Pedagogy; Saxophone**

(Perm req) Credits: 4 Grading Method: Regular, Sat-Fail

Recital course. Prerequisite: MUSP 816 and permission of Department Chairman.

Contact department for information to register for this course.

MUSP817L **Interpretation, Performance, and Pedagogy; Horn**

(Perm req) Credits: 4 Grading Method: Regular, Sat-Fail

Recital course. Prerequisite: MUSP 816 and permission of Department Chairman.

Contact department for information to register for this course.

MUSP817M **Interpretation, Performance, and Pedagogy; Trumpet**

(Perm req) Credits: 4 Grading Method: Regular, Sat-Fail

Recital course. Prerequisite: MUSP 816 and permission of Department Chairman.

Contact department for information to register for this course.

MUSP817N **Interpretation, Performance, and Pedagogy; Trombone**

(Perm req) Credits: 4 Grading Method: Regular, Sat-Fail

Recital course. Prerequisite: MUSP 816 and permission of Department Chairman.

Contact department for information to register for this course.

MUSP817O **Interpretation, Performance, and Pedagogy; Tuba**

(Perm req)

Credits: 4

Grading Method: Regular, Sat-Fail

Recital course. Prerequisite: MUSP 816 and permission of Department Chairman.

Contact department for information to register for this course.

MUSP817P **Interpretation, Performance, and Pedagogy; Euphonium**

(Perm req)

Credits: 4

Grading Method: Regular, Sat-Fail

Recital course. Prerequisite: MUSP 816 and permission of Department Chairman.

Contact department for information to register for this course.

MUSP817Q **Interpretation, Performance, and Pedagogy; Percussion**

(Perm req)

Credits: 4

Grading Method: Regular, Sat-Fail

Recital course. Prerequisite: MUSP 816 and permission of Department Chairman.

Contact department for information to register for this course.

MUSP817T **Interpretation, Performance, and Pedagogy; Composition**

(Perm req)

Credits: 4

Grading Method: Regular, Sat-Fail

Recital course. Prerequisite: MUSP 816 and permission of Department Chairman.

Contact department for information to register for this course.

MUSP817U **Interpretation, Performance, and Pedagogy; Conducting**

(Perm req)

Credits: 4

Grading Method: Regular, Sat-Fail

Recital course. Prerequisite: MUSP 816 and permission of Department Chairman.

Contact department for information to register for this course.

MUSP817V **Interpretation, Performance, and Pedagogy; Harp**

(Perm req)

Credits: 4

Grading Method: Regular, Sat-Fail

Recital course. Prerequisite: MUSP 816 and permission of Department Chairman.

Contact department for information to register for this course.

MUSP817W **Interpretation, Performance, and Pedagogy; Electronic Composition**

(Perm req)

Credits: 4

Grading Method: Regular, Sat-Fail

Recital course. Prerequisite: MUSP 816 and permission of Department Chairman.

Contact department for information to register for this course.

MUSP898 **Pre-Candidacy Research**

(Perm req)

Credits: 1-8

Grading Method: Regular, Sat-Fail

Contact department for information to register for this course.

MUSP899 **Doctoral Dissertation Research**

(Perm req)

Credits: 6

Grading Method: Sat-Fail

Contact department for information to register for this course.

NACS Neuroscience & Cognitive Science Spring 2020

NACS600 **Ethics in Scientific Research**

(Perm req)

Credits: 2

Grading Method: Regular, Audit, Sat-Fail

Prerequisite: Must have completed a year of graduate study. Restriction: Permission of instructor; and must be in Neurosciences and Cognitive Sciences (Doctoral) program. Credit only granted for: NACS600, PSYC788B, or BIOL600.

Issues of scientific integrity with emphasis on investigators in the laboratory sciences, including mentoring, scientific record keeping, authorship and peer review, ownership of data, use of animals and humans in research, and conflict of interest.

Cross-listed with BIOL600. Credit granted for NACS600 or BIOL600.

0101	Rochelle Newman	Seats (Total: 20)
	M 2:30pm - 4:10pm	LEF 1171

NACS608 **Neuroscience and Cognitive Science Seminar**

Credits: 1

Grading Method: Regular, Sat-Fail

Special seminar topics in Neuroscience and Cognitive Science.

0101	Ricardo Araneda	Seats (Total: 20)
	F 10:15am - 11:15am	BRB 1103

NACS642 **Cognitive Neuroscience**

Credits: 4

Grading Method: Regular,
Audit, Sat-Fail

A study of the fundamental concepts and techniques of cognitive neuroscience. Hands-on experience with three critically different cognitive neuroscience methods: EEG, MEG, and fMRI.

0101	Donald Bolger	Seats (Total: 15)
	TuTh 10:00am - 12:00pm	COL 0211

NACS644 **Cellular and Molecular Neuroscience**

Credits: 4

Grading Method: Regular,
Audit, Sat-Fail

Prerequisite: NACS641; or permission of instructor.

Overview of insights into the molecular mechanisms underlying the structure and function of the nervous system.

0101	Colenso Speer	Seats (Total: 20)
	TuTh 3:30pm - 5:30pm	BPS 2249

NACS728M **Selected Topics in Neuroscience and Cognitive Science; Grant Writing**

Credits: 2

Grading Method: Regular,
Audit, Sat-Fail

Graduate seminar on selected topics in contemporary neuroscience and Cognitive science. Extensive readings from the primary literature. Topics vary by semester.

Cross-listed with BIOL709A. Credit granted for NACS728M or BIOL709A. Instruction in grant-writing skill, introduction to resources, discussions on how to make your grant competitive, and insight into th e review process. The goal will be to have each participant submit an NRSA.

0101	Elizabeth Quinlan	Seats (Total: 14)
	Th 1:00pm - 3:00pm	BRB 3101

NACS728N **Selected Topics in Neuroscience and Cognitive Science; Diseases of the Nervous System**

Credits: 3

Grading Method: Regular,
Audit, Sat-Fail

Graduate seminar on selected topics in contemporary neuroscience and Cognitive science. Extensive readings from the primary literature. Topics vary by semester.

0101	Quentin Gaudry TuTh 2:00pm - 3:15pm	Seats (Total: 8) BPS 0283	

NACS728Q **Selected Topics in Neuroscience and Cognitive Science; Biological Bases of Behavior Laboratory**

(Perm req)

Credits: 4 Grading Method: Regular, Audit, Sat-Fail

Graduate seminar on selected topics in contemporary neuroscience and Cognitive science. Extensive readings from the primary literature. Topics vary by semester.

0101	David Yager MW 9:00am - 9:50am M 1:00pm - 5:00pm	Seats (Total: 6) Location: TBA Location: TBA	 Lab
0201	Instructor: TBA MW 9:00am - 9:50am Tu 1:00pm - 5:00pm	Seats (Total: 6) Location: TBA Location: TBA	 Lab
0301	Instructor: TBA MW 9:00am - 9:50am W 1:00pm - 5:00pm	Seats (Total: 6) Location: TBA Location: TBA	 Lab

NACS728Y **Selected Topics in Neuroscience and Cognitive Science; NEURAL CODING**

Credits: 2 Grading Method: Regular, Audit, Sat-Fail

Graduate seminar on selected topics in contemporary neuroscience and Cognitive science. Extensive readings from the primary literature. Topics vary by semester.

0101	Daniel Butts W 4:00pm - 6:00pm	Seats (Total: 15) BPS 1230

NACS798 **Master's Non-Thesis Research**

Credits: 1-3 Grading Method: Regular, Sat-Fail

Individual research course for NACS non-thesis MS degree

Contact department for information to register for this course.

NACS799 **Master's Thesis Research**

Credits: 1-3 Grading Method: Sat-Fail

Individualized research course for NACS thesis MS degree

Contact department for information to register for this course.

NACS898 **Pre-Candidacy Research**

Credits: 1-8 Grading Method: Regular, Sat-Fail

Contact department for information to register for this course.

NACS899 **Doctoral Dissertation Research**

(Perm req)

Credits: 6 Grading Method: Sat-Fail

Indivdual instruction course: contact department or instructor to obtain section number

Contact department for information to register for this course.

NAVY Navy Spring 2020

NAVY101 **Sea Power and Maritime Affairs**

Credits: 3 Grading Method: Regular, Pass-Fail

Introduces the student to the key themes of naval and maritime history. Curriculum presents an analysis through lectures, reading, and student discussion of the relationship of sea power to American history. Classical concepts and contemporary employment of sea power are examined by viewing historic and current naval and maritime developments.

0101	Edward Butler TuTh 8:00am - 9:15am	Seats (Total: 40) ARM 0135

NAVY108 **Naval Science Leadership Lab**

Credits: 1 Grading Method: Regular, Pass-Fail

Introduces the student to a variety of instructional sessions and/or activities that will develop the leadership component of the Naval ROTC program. The Naval Science leadership lab may include, but not be limited to, close-order drill, physical fitness training, ceremonial functions, Department of the Navy policy, guest lecturers, general military training (GMT), Anti-Terrorism Force Protection (ATFP), traffic safety, nutrition, stress management, prevention of sexual harassment, and operations security.

0101	Troy Mong, Nathaniel Kaine Th 6:00am - 7:50am	Seats (Total: 150) ESJ 1224

NAVY201 **Navigation**

(Perm req)

Credits: 3 | Grading Method: Regular, Pass-Fail | General Education: DSSP

Restriction: Permission of UGST-Navy ROTC. Additional information: Priority enrollment will be given to students enrolled in the University of Maryland NROTC program.

Introduces the student to a broad yet thorough education in basic surface ship navigation. Curriculum presents an overview of tools of the modern naval watch officer, and topics include celestial navigation, rules of the nautical road, piloting, practical chartwork, tides, instruments, publications, records, and electronic navigation systems. Instructional sessions and/or activities develop the maritime proficiency core competency of the Naval Reserve Officer Training Corps (NROTC) program.

0101	Barry Feinstein	Seats (Total: 35)
	MW 8:00am - 9:15am	ARM 0120

NAVY301 **Naval Ship Systems II (Weapons)**

(Perm req)

Credits: 3 | Grading Method: Regular, Pass-Fail

Recommended: MATH140, MATH141, and PHYS161. Restriction: Permission of UGST-Navy ROTC. Additional information: Priority enrollment will be given to students enrolled in the NROTC program.

Introduces the student to a comprehensive fundamental understanding of United States naval weaponry. Includes theory and employment of weapons systems, including the processes of detection, evaluation, threat analysis, weapon selection, delivery, guidance, and explosives. Radar and sonar systems and major weapon types, including capabilities and limitations. Facets of command, control, and communications as means of weapons system integration. Curriculum presents an in-depth review of surface, sub-surface, aviation, and Marine Corps weapons and platforms.

0101	Edward Butler	Seats (Total: 35)
	MW 8:00am - 9:15am	ARM 0135

NAVY401 **Leadership and Ethics**

(Perm req)

Credits: 3 | Grading Method: Regular, Pass-Fail

Recommended: NAVY200. Restriction: Permission of UGST-Navy ROTC. Additional information: Priority enrollment will be given to students enrolled in the NROTC program.

Integrates an intellectual exploration of Western moral traditions and ethical philosophy with military leadership, core values, the Uniform Code of Military Justice, and Navy regulations. The course provides students with a basic understanding of major moral traditions including Relativism, Utilitarianism, Kantian Ethics, Natural Law Theory, Divine Command Theory, and Virtue Ethics.

0101	Troy Mong TuTh 8:00am - 9:15am	Seats (Total: 35) ARM 0120

NAVY402 **Fundamentals of Maneuver Warfare**

(Perm req)

Credits: 3 | Grading Method: Regular, Pass-Fail | General Education: DSSP

Recommended: NAVY100, NAVY101, NAVY200, and NAVY108. Restriction: Permission of UGST-Navy ROTC. Additional information: Priority in enrollment will be given to students in the NROTC program.

A detailed study of the characteristics of modern warfare and their interactions with maneuver warfare doctrine, with a focus on the United States Marine Corps. Throughout the course, there is a strong focus on leadership, as the fundamental purpose of this course is to develop the skills, knowledge, leadership background and mentality necessary for a successful future leadership and service, whether in the military or the civilian sector.

0101	Nathaniel Kaine TuTh 9:30am - 10:45am	Seats (Total: 20) ARM 0108
0102	Nathaniel Kaine TuTh 8:15am - 9:30am	Seats (Total: 5) ARM 0108

NEUR Neuroscience Spring 2020

NEUR200 **Introduction to Neuroscience**

Credits: 3 | Grading Method: Regular, Pass-Fail, Audit | General Education: DSNS

Prerequisite: Minimum grade of C- in BSCI170 and BSCI171. Cross-listed with: PSYC202. Credit only granted for: PSYC309U, NEUR200, PSYC202 or PSYC301. Formerly: PSYC309U.

In an evolutionary sense, the job of the nervous system is to produce, control, and coordinate behaviors that help an animal survive and reproduce. Neuroscience is the study of how the nervous system does that. Provides a broad introduction to neuroscience, always keeping the behavioral consequences in view.

Prerequisite: BSCI170/BSCI171 with a grade of C- or higher; or an equivalent college-level introductory biology course. Course Description: Neuroscience is the study of how the nervous system provides perception of the world around us, plans and controls movement, and creates complex behaviors, memories, emotions, and thoughts. To start, you will learn about the nervous system's structure and how cellsin the nervous system communicate with each other. We will examine our sensory capabilities and their roles in coordinated movement. You will see why sleep is so critical to emotional control, memory, and creativity. A major focus will be on the ability of the nervous system to change in structure and function throughout life. We will routinely discuss disorders of the nervous system to emphasize important concepts.

0101	David Yager	Seats (Total: 36)
	TuTh 3:30pm - 4:45pm	HJP 2242

NEUR305 **Neural Systems and Circuits**

Credits: 3 Grading Method: Regular, Pass-Fail

Prerequisite: MATH135 or 140 with C- or higher; NEUR200 OR BSCI 353 OR PSYC 309U OR PSYC301 with C- or higher.

This course examines the anatomy and neuronal circuits that give rise to mental activity: perception, planned action, and thought, emphasizing the cortical mechanisms involved. Modern experimental and analytical techniques will be described and students will interpret and critique primary literature.

0101	Amanda Chicoli	Seats (Total: 24)
	TuTh 2:00pm - 3:15pm	BPS 0140

NFSC Nutrition and Food Science Spring 2020

The following courses may involve the use of animals. Students who are concerned about the use of animals in teaching have the responsibility to contact the instructor, prior to course enrollment, to determine whether animals are to be used in the course, whether class exercises involving animals are optional or required and what alternatives, if any, are available.

NFSC100 **Elements of Nutrition**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit CORE: LS General Education: DSNS

Fundamentals of human nutrition. Nutrient requirements related to changing individual and family needs.

0101	Shaik Rahaman, David Lei, Hee-Jung Song, Seong-Ho Lee MW 11:00am - 11:50am W 3:00pm - 3:50pm	Seats (Total: 25) TYD 0130 JMZ 1120	Discussion
0102	Seong-Ho Lee, David Lei, Hee-Jung Song, Shaik Rahaman MW 11:00am - 11:50am W 2:00pm - 2:50pm	Seats (Total: 25) TYD 0130 WDS 1114	Discussion
0103	David Lei, Seong-Ho Lee, Hee-Jung Song, Shaik Rahaman MW 11:00am - 11:50am Tu 4:00pm - 4:50pm	Seats (Total: 25) TYD 0130 JMZ 1124	Discussion
0104	Seong-Ho Lee, David Lei, Shaik Rahaman, Hee-Jung Song MW 11:00am - 11:50am Th 12:30pm - 1:20pm	Seats (Total: 25) TYD 0130 BPS 1234	Discussion
0105	Hee-Jung Song, David Lei, Seong-Ho Lee, Shaik Rahaman MW 11:00am - 11:50am F 11:00am - 11:50am	Seats (Total: 25) TYD 0130 SYM 0209	Discussion
0106	Hee-Jung Song, Shaik Rahaman, Seong-Ho Lee, David Lei MW 11:00am - 11:50am W 2:00pm - 2:50pm	Seats (Total: 25) TYD 0130 JMZ 3120	Discussion
0108	Hee-Jung Song, Seong-Ho Lee, Shaik Rahaman, David Lei MW 11:00am - 11:50am W 12:00pm - 12:50pm *Section 0108 is recommended for majors only.*	Seats (Total: 25) TYD 0130 JMZ 1124	Discussion
0110	Hee-Jung Song, David Lei, Shaik Rahaman, Seong-Ho Lee MW 11:00am - 11:50am W 1:00pm - 1:50pm	Seats (Total: 25) TYD 0130 JMZ 1120	Discussion

0111	Hee-Jung Song, Seong-Ho Lee, Shaik Rahaman, David Lei MW 11:00am - 11:50am Tu 2:00pm - 2:50pm	Seats (Total: 25) TYD 0130 JMZ 2120	Discussion
0113	David Lei, Hee-Jung Song, Shaik Rahaman, Seong-Ho Lee MW 11:00am - 11:50am Th 2:00pm - 2:50pm	Seats (Total: 25) TYD 0130 JMZ 1124	Discussion
0117	Seong-Ho Lee, Shaik Rahaman, Hee-Jung Song, David Lei MW 11:00am - 11:50am W 10:00am - 10:50am	Seats (Total: 25) TYD 0130 KEY 0123	Discussion
0118	Hee-Jung Song, Shaik Rahaman, David Lei, Seong-Ho Lee MW 11:00am - 11:50am W 9:00am - 9:50am	Seats (Total: 25) TYD 0130 JMZ 1124	Discussion

NFSC298 **Sports Nutrition Internship Practicum**

(Perm req)

Credits: 1 Grading Method: Sat-Fail

Internship where individuals will be able to gain hands on experience working in collegiate athletics. Students will interact with an interdisciplinary team including registered dietitians, coaches, trainers, physicians and others to develop and enhance nutrition-related knowledge and skills. They will also gain invaluable experience and exposure to the day-to-day duties of a collegiate sports dietitian.

Class will meet in the Varsity Team House.

0101	Politimi Karamihas, Colleen Carrion Tu 1:00pm - 1:50pm Contact instructor or department for details.	Seats (Total: 20) Location: TBA

NFSC315 **Nutrition During the Life Cycle**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Prerequisite: Minimum grade of C- in NFSC100.

A study of how development throughout life, including prenatal development, pregnancy, lactation, adolescence and aging, alter nutrient requirements. Students will apply this knowledge to the dietary needs and food choices of these different groups.

0101	Monica Whent	Seats (Total: 101)
	TuTh 2:00pm - 3:15pm	TYD 0117

NFSC386 **Experiential Learning**

(Perm req)

Credits: 3-6 Grading Method: Regular, Pass-Fail

Prerequisite: Permission of AGNR-Nutrition and Food Science department. Restriction: Junior standing or higher. Formerly: FDSC386 and NUTR386.

Contact department for information to register for this course.

NFSC398 **Seminar**

Credits: 1 Grading Method: Regular, Pass-Fail

Presentation and discussion of current literature and research in food science.

FDSC majors only.

0101	Qin Wang	Seats (Total: 15)
	F 12:00pm - 12:50pm	SKN 0101

NFSC399 **Special Problems in Food Science**

(Perm req)

Credits: 1-3 Grading Method: Regular, Pass-Fail, Audit

Designed for advanced undergraduates. Specific problems in food science will be assigned.

Contact department for information to register for this course.

NFSC414 **Mechanics of Food Processing**

Credits: 4 Grading Method: Regular, Pass-Fail, Audit

Prerequisite: PHYS121. Credit only granted for: ENBE414 or NFSC414. Formerly: ENBE414.

Applications in the processing and preservation of foods, of power transmission, hydraulics, electricity, thermodynamics, refrigeration, instruments and controls, materials handling and time and motion analysis.

0101	Rohan Tikekar	Seats (Total: 30)	
	MW 10:00am - 10:50am F 1:00pm - 2:30pm	KEY 0103 JMZ 1122	Lab

NFSC430 **Food Microbiology**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Prerequisite: BSCI223; or permission of instructor. Credit only granted for: ANSC430 or NFSC430. Formerly: FDSC430.

A study of microorganisms of major importance to the food industry with emphasis on food-borne outbreaks, public health significance, bioprocessing of foods, disease control, and the microbial spoilage of foods.

0101	Robert Buchanan	Seats (Total: 40)	
	Tu 8:00am - 10:45am	MMH 3112	

NFSC431 **Food Quality Control**

Credits: 4 Grading Method: Regular, Pass-Fail, Audit

Definition and organization of the quality control function in the food industry; preparation of specifications; statistical methods for acceptance sampling; in-plant and processed product inspection. Instrumental and sensory methods for evaluating sensory quality, identity and wholesomeness and their integration into grades and standards of quality. Statistical Process Control (SPC).

0101	Abani Pradhan	Seats (Total: 20)	
	TuTh 11:00am - 11:50am F 9:00am - 11:30am	SKN 0101 MMH 3419	Lab

NFSC434 **Food Microbiology Laboratory**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Prerequisite: Must have completed or be concurrently enrolled in NFSC430. Credit only granted for: NFSC434 or ANSC434. Formerly: FDSC434.

A study of techniques and procedures used in the microbiological examination of foods.

0101	Zhujun Gao	Seats (Total: 20)	
	TuTh 12:30pm - 4:00pm	MMH 3419	Lab

NFSC450 **Food and Nutrient Analysis**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Prerequisite: BCHM461 and NFSC100. Formerly: NUTR450.

Methods and practices of the analysis of foods and nutrients. An overview of the principles and basic mechanisms used in many of the analytical procedures commonly used in food and nutrition research. Emphasis will be placed on hands-on development of skills necessary to complete each analytical procedure; and on the accurate and concise description of the methodology and results from their application and on the regulations governing food analysis for nutritional labeling.

0101	Diana Obanda W 1:00pm - 1:50pm W 2:00pm - 5:00pm	Seats (Total: 13) MMH 3112 MMH 3419	 Lab
0102	Diana Obanda W 1:00pm - 1:50pm M 1:00pm - 4:00pm	Seats (Total: 13) MMH 3112 MMH 3419	 Lab

NFSC460 **Medical Nutrition Therapy II**

(Perm req)

Credits: 4 Grading Method: Regular, Pass-Fail, Audit

Prerequisite: Minimum of C- in NFSC380 and NFSC440; and permission of AGNR-Nutrition and Food Science department.

Modifications of the normal adequate diet to meet human nutritional needs in acute and chronic diseases and metabolic disorders.

0101	Margaret Udahogora MW 1:00pm - 2:15pm M 2:30pm - 5:30pm	Seats (Total: 17) PLS 1113 SKN 0101	 Lab
0102	Margaret Udahogora MW 1:00pm - 2:15pm W 2:30pm - 5:30pm	Seats (Total: 17) PLS 1113 SKN 0101	 Lab

NFSC470 **Community Nutrition**

(Perm req)

Credits: 3 Grading Method: Regular, Pass-Fail, Audit General Education: DSSP, DVCC

Prerequisite: Minimum of C- in NFSC315.

Perspectives underlying the practice of nutrition services in community settings. Assessment of needs, program planning and evaluation. Programs and strategies to meet nutrition needs outside the acute care setting, such as nutrition education and food assistance. National nutrition policy and federal initiatives in nutrition will be examined. Students will be required to travel to local community nutrition sites during the semester.

0101	Nadine Sahyoun	Seats (Total: 40)	
	MW 11:00am - 11:50am	KEY 0116	
	F 10:00am - 11:50am	KEY 0116	Discussion

NFSC490 **Special Problems in Nutrition**

(Perm req)

Credits: 2-3 Grading Method: Regular, Pass-Fail, Audit General Education: DSSP

Prerequisite: NFSC440; and permission of AGNR-Nutrition and Food Science department.

Individually selected problems in the area of human nutrition.

Contact department for information to register for this course.

NFSC491 **Issues and Problems in Dietetics**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit CORE: CS

Prerequisite: Minimum of C- in NFSC350 and permission of Nutrition and Food Science Dietetics program. Corequisite: NFSC460. Restriction: Senior standing or higher; and must be in Nutrition and Food Science: Dietetics program.

A capstone course for dietetics majors. Students will integrate knowledge and theory of nutrition, food, management, psychology, and social behaviors necessary to support quality dietetic practice. Working in teams, students will participate in case studies, simulated situations and community projects. Individuals and groups will present cases as well as papers on published research.

0101	Monica Whent	Seats (Total: 30)
	MW 8:30am - 10:50am	HBK 0103

NFSC498 **Selected Topics**

(Perm req)

Credits: 1-3 Grading Method: Regular, Pass-Fail, Audit

Selected current aspects of food.

Contact department for information to register for this course.

NFSC498A **Selected Topics; Individual Study**

(Perm req)

Credits: 1-3 Grading Method: Regular, Pass-Fail, Audit

Selected current aspects of food.

Contact department for information to register for this course.

NFSC498L **Selected Topics; Diet and Optimal Human Health**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Selected current aspects of food.

0101	Seong-Ho Lee	Seats (Total: 20)
	Tu 2:00pm - 4:30pm	MMH 3112

NFSC631 **Advanced Food Microbiology**

(Perm req)

Credits: 3 Grading Method: Regular, Sat-Fail

Prerequisite: NFSC430. Restriction: Permission of instructor.

One lecture and one laboratory period a week. An in-depth understanding and working knowledge of a selected number of problem areas and contemporary topics in food microbiology.

0101	Jianghong Meng	Seats (Total: 25)
	F 1:00pm - 3:45pm	ATL 2316

NFSC633 **Food Polymer Science**

Credits: 3 Grading Method: Regular, Sat-Fail

Prerequisite: Permission of instructor. Credit only granted for: NFSC633 or NFSC679P. Formerly: NFSC679P.

Food polymers including protein and carbohydrate from food, and their chemical, physical, and functional properties together with their structure-function relationship will be discussed. Food polymer applications in food and non-food areas will be covered. Principles and applications of instrumental methods for polymer characterization will be introduced. An emphasis on nanotechnology and its application to design and characterization food polymers will be included.

0101	Qin Wang Th 1:00pm - 3:45pm	Seats (Total: 15) SKN 0101

NFSC660 **Research Methods**

Credits: 3 Grading Method: Regular, Audit, Sat-Fail

Prerequisite: Must have completed one statistics course. Formerly: NUTR 660.

A study of appropriate research methodology and theories including experimental design. Each student is required to develop a specimen research proposal.

0101	David Lei W 2:00pm - 4:45pm	Seats (Total: 12) MMH 3112

NFSC678A **Selected Topics in Nutrition**

Credits: 1-4 Grading Method: Regular, Audit, Sat-Fail

Individual or group study in an area of nutrition.

Contact department for information to register for this course.

NFSC678L **Selected Topics in Nutrition; Diet and Optimal Human Health**

Credits: 3 Grading Method: Regular, Audit, Sat-Fail

Individual or group study in an area of nutrition.

0101	Seong-Ho Lee Tu 2:00pm - 4:30pm	Seats (Total: 5) MMH 3112

NFSC678M **Selected Topics in Nutrition; Current Topics in Nutrition and Inflammatory Disease**

Credits: 3 Grading Method: Regular, Audit, Sat-Fail

Individual or group study in an area of nutrition.

Analysis of current topics related to diet, nutrition, and inflammatory disease at cellular, molecular and biochemical level. Further, this course will provide overview of the current methods, and in vitro/vivo model systems used in research. Syllabus includes topics relevant to dietary regulation of genes/proteins and their impact on inflammatory diseases. This course is designed to help students to understand and apply current scientific concepts and research methods, and to obtain necessary skills in evaluation/interpretation of evidence based scientific data.

0101	Shaik Rahaman	Seats (Total: 20)
	M 2:15pm - 5:00pm	MMH 3112

NFSC679M **Selected Topics in Food Science**

Credits: 1-6 Grading Method: Regular, Sat-Fail

Individual or group study in an area of food science.

0101	Robert Buchanan	Seats (Total: 5)
	TuTh 9:00am - 10:15am	MMH 3112

NFSC688 **Seminar in Nutrition and Food Science**

Credits: 1-3 Grading Method: Sat-Fail, Audit

This is a seminar course presentedy by NFSC graduate students and invited speakers in the field of nutrition and food science.

0101	David Lei	Seats (Total: 25)
	W 12:00pm - 12:50pm	SKN 0101

NFSC699 **Problems in Nutrition and Food Science**

(Perm req)

Credits: 1-4 Grading Method: Regular, Audit, Sat-Fail

Credit according to time scheduled and magnitude of problem. An experimental program on a topic other than the student's thesis problem will be conducted. Four credits shall be the maximum allowed toward an advanced degree.

Contact department for information to register for this course.

NFSC736 **Antimicrobial Resistance and Me: Understanding the Science and Adapting Behavior to Preserve Human Health**

Credits: 1 Grading Method: Regular, Sat-Fail

Cross-listed with: ENST736, MIEH736.

Improving one's understanding of AMR mechanisms and risks is the first step toward contributing to mitigation of AMR-related risks for human health more broadly. This course is intended to empower participants to identify ways in which AMR impacts their own life, recognize individual behaviors that may contribute to AMR proliferation, and take action to mitigate their contributions to and risks associated with AMR. This course will deliver webinars by educators and researchers throughout the U.S. discussing their AMR-related research and educational activities with emphasis on describing the impacts of work relative to the audience. Participants will be expected to attend live webinar broadcasts and participate in discussion with the speakers and other participants. Students taking the seminar course will also have access to shared resources and forums to further their exploration and engagement with course topics.

Class will meet January 28th through March 5th; and March 31st.

0101	Stephanie Lansing, Rohan Tikekar	Seats (Total: 15)
	Meets January 28, 2020 - March 31, 2020	
	TuTh 10:00am - 10:50am	ANS 1422

NFSC799 **Master's Thesis Research**

Credits: 1-6 Grading Method: Sat-Fail

First and second semesters. Credit in proportion to work done and results accomplished. Investigation in some phases of foodservice administration which may form the basis of a thesis. results in the form of a thesis.

Contact department for information to register for this course.

NFSC898 **Pre-Candidacy Research**

Credits: 1-8 Grading Method: Regular, Sat-Fail

First and second semesters. Oral reports on special topics or recently published research in nutrition. Distinguished scientists are invited as guest lecturers. A maximum of three credits allowed for the M.S.

Contact department for information to register for this course.

NFSC899 **Doctoral Dissertation Research**

(Perm req)

Credits: 6 Grading Method: Sat-Fail

Contact department for information to register for this course.

NIAP National Institute of Aeronautics - Va Tech Spring 2020

NIAP788A **Special Topics in National Institue of Aerospace Engineering; Applied Numerical Method**

Credits: 1-3 Grading Method: Regular, Audit, Sat-Fail

TV01	Instructor: TBA	Seats (Total: 5)
	Contact instructor or department for details.	

NIAP788B **Special Topics in National Institue of Aerospace Engineering; Applied Linear Controls**

(Perm req)

Credits: 3 Grading Method: Regular, Audit, Sat-Fail

Contact department for information to register for this course.

NIAV National Institute of Aeronautics - Univ of VA Spring 2020

NIAV788A **Advanced Topics; Engineering Design Optimization**

(Perm req)

Credits: 3 Grading Method: Regular, Audit, Sat-Fail

Contact department for information to register for this course.

NIAV788B **Advanced Topics; Multibody Mechanical Systems**

Credits: 3 Grading Method: Regular, Audit, Sat-Fail

Contact department for information to register for this course.

NIAV788W **Advanced Topics; Statistics for Engineers and Scientists**

Credits: 3 Grading Method: Regular, Sat-Fail

TV01	Sung Lee	Seats (Total: 20)
	Contact instructor or department for details.	

PEER Health Center Spring 2020

PEER318 **CARE Peer Advocacy**

(Perm req)

Credits: 3 Grading Method: Regular, Pass-Fail

Designed to train students to become Peer Advocates who are responsible for providing crisis and short-term support services for victims of sexual assault, relationship violence, stalking, sexual harassment and child abuse.Students will be meeting with clients and providing emotional support and resources (both on and off campus). During weekly classes, students will be trained in trauma-informed crisis intervention procedures that will not only help them assist clients during in- person sessions but will help them support clients via the crisis cell. Students will be expected to maintain the crisis cell (on a shared basis)throughout the semester as well as maintain 10 hours per week in the CARE office. In addition to maintaining the crisis cell and office hours, during the spring semester students will be tasked with working as a team in planning and executing a Take Back the Night event.

0101	Christina Jay	Seats (Total: 15)
	W 4:30pm - 6:00pm Contact instructor or department for details.	Location: TBA

PEER319 **CARE to Stop Violence Outreach Peer Program; Care Peer Outreach**

(Perm req)

Credits: 3 Grading Method: Regular, Pass-Fail

A two semester, 6-credit course designed to train students in the knowledge, values and skills to build professional relationships and become leaders in community development related to the social justice issue of sexual misconduct with emphasis on the college campus environment.

0101	Max Balagtas-Badoy, Nate Burke	Seats (Total: 15)
	MW 5:00pm - 5:50pm Contact instructor or department for details.	KEY 0100
	Contact department or instructor for details.	

PEER321 **Advanced Peer Education Mental Health and Wellness**

(Perm req)

Credits: 3 Grading Method: Regular, Pass-Fail General Education: DSSP

Prerequisite: Students must complete an interview before enrolling in this course; and minimum grade of B- in PEER311. Restriction: Minimum cumulative GPA of 2.5; and permission of instructor. Credit only granted for: HLTH381 or PEER321. Formerly: HLTH381. Additional information: In addition to the weekly class lectures and experiential learning opportunities facilitating educational outreach on campus, advanced peer educators will meet weekly in groups. These group meetings will provide a space for the students to incorporate class content to enhance the design, development, and evaluation of a sexual assault prevention or awareness program for the University of Maryland campus community. Coordinators will meet with student groups to facilitate and supervise this process.

PEER 321 is a three-credit, interdisciplinary course building upon the stress management, mental illness, appropriate on/off campus resources, stigma, body image, helping a friend in distress, bystander intervention, and mental health/wellness knowledge gained during PEER 311. Students will gain a fundamental understanding of program planning basics through a series of assignments where they theoretically plan their own prevention or awareness program for the University of Maryland campus community. Students who become a Peer Leader during year two may have the opportunity to implement this program on campus. This course also provides advanced training in the skills necessary to serve as an effective Peer Educator under the University Health Center. Peer Educators will continue to provide outreach and education to the campus community through various outreach events, workshops, and more.

0101	Olivia Mays, Sarah Wilson	Seats (Total: 25)
	M 4:00pm - 5:00pm	ESJ B0320
	W 4:00pm - 6:00pm	ESJ B0320

PEER322 **Advanced Peer Education: Preventing Power-Based Violence**

(Perm req)

Credits: 3 Grading Method: Regular, Pass-Fail General Education: DSSP

Prerequisite: Students must complete an interview before enrolling in this course; and minimum grade of B- in PEER312. Restriction: Minimum cumulative GPA of 2.5; and permission of instructor. Credit only granted for: HLTH382 or PEER322. Formerly: HLTH382. Additional information: In addition to the weekly class lectures and experiential learning opportunities facilitating educational outreach on campus, advanced peer educators will meet weekly in groups. These group meetings will provide a space for the students to incorporate class content to enhance the design, development, and evaluation of a sexual assault prevention or awareness program for the University of Maryland campus community. Coordinators will meet with student groups to facilitate and supervise this process.

PEER 322 is a three-credit, interdisciplinary course building upon the sexual assault, relationship violence, stalking, bystander intervention, and wellness knowledge gained during PEER 312. Students will gain a fundamental understanding of program planning basics through a series of assignments where they theoretically plan their own prevention or awareness program for the University of Maryland campus community. Students who become a Peer Leader during year two may have the opportunity to implement this program on campus. This course also provides advanced training in the skills necessary to serve as an effective Peer Educator under the University Health Center. Peer Educators will continue to provide outreach and education to the campus community through various outreach events, workshops, and more.

0101	Rajan Parikh	Seats (Total: 15)
	M 4:00pm - 5:00pm	JMZ 2122
	W 4:00pm - 6:00pm	JMZ 2122

PEER324 **Advanced Peer Education: Sexual Health & Wellness**

(Perm req) Credits: 3 Grading Method: Regular, Pass-Fail General Education: DSSP

Prerequisite: Students must complete an interview before enrolling in this course; and minimum grade of B- in PEER314. Restriction: Minimum cumulative GPA of 2.5; and permission of instructor. Credit only granted for: HLTH383 or PEER324. Formerly: HLTH383. Additional information: In addition to the weekly class lectures and experiential learning opportunities facilitating educational outreach on campus, advanced peer educators will meet weekly in groups. These group meetings will provide a space for the students to incorporate class content to enhance the design, development, and evaluation of a sexual health and wellness program for the University of Maryland campus community. Coordinators will meet with student groups to facilitate and supervise this process.

PEER 324 is a three-credit, interdisciplinary course building upon the sexual health and wellness knowledge gained during PEER 314. Students will gain a fundamental understanding of program planning basics through a series of assignments where they theoretically plan their own wellness program for the University of Maryland campus community. Students who become Peer Leaders during year two (PEER338) may have the opportunity to implement this program on campus. This course also provides advanced training in the skills necessary to serve as an effective Peer Educator under the University Health Center. Peer Educators will continue to provide outreach and education to the campus community through various outreach events, workshops, and more.

0101	Jenna Messman M 4:00pm - 5:00pm W 4:00pm - 6:00pm	Seats (Total: 15) JMZ 3120 JMZ 3120

PEER338 PEER LEADERSHIP AND EDUCATION

Credits: 3 Grading Method: Regular, Pass-Fail

An interdisciplinary independent study designed to enhance the scope of learning around UHC peer education topics and train students to serve as leaders for those enrolled in first year peer courses, PEER31X and PEER32X. Second year peers are trained to facilitate intersectional and advanced health education dialogue, as well as serve in leadership roles for the course in which they were previously enrolled, PEER31X and PEER32X. Additionally, Peer Leader responsibilities include creating and implementing campus wide events to promote learning around the intersections between UHC peer education group topics (power-based violence, sexual health, alcohol and other drugs, stress and mental health). Peer Leaders will have different responsibilities based on the programmatic needs and goals of the semester.

0101	Jenna Messman, Sarah Wilson, Rajan Parikh M 5:15pm - 6:45pm W 5:15pm - 6:15pm	Seats (Total: 7) JMZ 1103 JMZ 1103

PERS102 **Elementary Persian II**

Credits: 4 Grading Method: Regular, Pass-Fail, Audit

Prerequisite: PERS101; or must have appropriate Foreign Language Placement Test (FLPT) score. Restriction: Must not be native/fluent speaker of Persian.

Continuation of PERS101 with emphasis on the use of formal language, vocabulary building, and reading.

0101	Bahareh Jalehmahmoudi	Seats (Total: 15)
	MTuWThF 10:00am - 10:50am	HJP 2114

PERS302 **Advanced Persian II**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Prerequisite: PERS301; or students who have taken courses with comparable content may contact the department. Restriction: Must not be native/fluent speaker of Persian.

Further development of speaking, reading, writing, listening and cultural knowledge, with special focus on reading, in a variety of literary genres.

0101	Ali Abasi	Seats (Total: 15)
	MWF 1:00pm - 1:50pm	HJP 2114

PERS312 **Contemporary Iranian Culture**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Prerequisite: PERS301; or students who have taken courses with comparable content may contact the department. Restriction: Must not be native/fluent speaker of Persian.

Study of the culture of contemporary Iran (post-evolution) with focus on the contemporary social, political, literary and artistic life in Iran. Taught in Persian.

0101	Manizhe Galledari	Seats (Total: 15)
	MWF 12:00pm - 12:50pm	HJP 2114

PERS371 **Introduction to Persian Literature in Translation**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit , D General Education: DSHU

Introduction to classical and modern canons of Persian literature in historical, esthetic, and social context. Taught in English.

0101	Nahid Ahmadian	Seats (Total: 15)
	MW 3:30pm - 4:45pm	JMZ 3118

PERS386 **Experiential Learning**

(Perm req)

Credits: 3-6 Grading Method: Regular, Pass-Fail, Audit

Restriction: Permission of ARHU-School of Languages, Literatures, and Cultures department.

Pre-professional experience in research, analysis and writing in a work setting. Project proposal approved by faculty and internship sponsor.

2950	Manizhe Galledari	Seats (Total: 5)
	Contact instructor or department for details.	

PERS399 **Directed Study in Persian**

(Perm req)

Credits: 1-3 Grading Method: Regular, Pass-Fail, Audit

Directed study with faculty supervision.

Contact department for information to register for this course.

PERS498A **Special Topics in Persian Studies; Advanced Literacy Skills in Persian**

(Perm req)

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Topic and language to be announced when offered.

Taught in Persian.

0101	Manizhe Galledari	Seats (Total: 5)
	Tu 9:00am - 11:45am	HJP 3115

PERS498D **Special Topics in Persian Studies; Political, Economic, and Social Thought in Today's Iran**

(Perm req)

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Topic and language to be announced when offered.

Taught in Persian.

0101	Ali Abasi F 9:00am - 11:45am	Seats (Total: 5) HJP 3115

PERS498E **Special Topics in Persian Studies; Translation of Contemporary Persian Texts**

(Perm req)

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Topic and language to be announced when offered.

0101	Bahareh Jalehmahmoudi M 9:00am - 9:50am M 11:00am - 12:45pm	Seats (Total: 5) HJP 3115 HJP 3115

PERS498G **Special Topics in Persian Studies; Masterpieces of Persian Literature**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Topic and language to be announced when offered.

Taught in Persian.

0101	Mohammad Bazargan Th 6:00pm - 8:30pm	Seats (Total: 15) JMZ 2117

PERS498O **Special Topics in Persian Studies; Persian Literature in Modern Iran**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Topic and language to be announced when offered.

0101	Mohammad Bazargan W 9:00am - 11:45am	Seats (Total: 5) HJP 3115

PHIL Philosophy Spring 2020

PHIL100 **Introduction to Philosophy**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit CORE: HO General Education: DSHU

An introduction to the literature, problems, and methods of philosophy either through a study of some of the main figures in philosophic thought or through an examination of some of the central and recurring problems of philosophy.

0101	Sungwon Woo TuTh 9:30am - 10:45am	Seats (Total: 25) TWS 1321	
0201	Dan Moller MW 1:00pm - 1:50pm F 10:00am - 10:50am	Seats (Total: 25) SKN 0200 CHE 2145	Discussion
0202	Dan Moller MW 1:00pm - 1:50pm F 11:00am - 11:50am	Seats (Total: 25) SKN 0200 SQH 1101	Discussion
0203	Dan Moller MW 1:00pm - 1:50pm F 1:00pm - 1:50pm	Seats (Total: 25) SKN 0200 KEY 0116	Discussion
0204	Dan Moller MW 1:00pm - 1:50pm F 10:00am - 10:50am	Seats (Total: 25) SKN 0200 ATL 2352	Discussion
0205	Dan Moller MW 1:00pm - 1:50pm F 11:00am - 11:50am	Seats (Total: 25) SKN 0200 SQH 1103	Discussion
0206	Dan Moller MW 1:00pm - 1:50pm F 1:00pm - 1:50pm	Seats (Total: 25) SKN 0200 SQH 1121	Discussion

PHIL140 **Contemporary Moral Issues**

Credits: 3 | Grading Method: Regular, Pass-Fail, Audit | CORE: HO | General Education: DSHU

The uses of philosophical analysis in thinking clearly about such widely debated moral issues as abortion, euthanasia, homosexuality, pornography, reverse discrimination, the death penalty, business ethics, sexual equality, and economic justice.

0101	Kyley Ewing TuTh 2:00pm - 2:50pm F 10:00am - 10:50am	Seats (Total: 25) MMH 1400 TWS 1320	Discussion

0102	Kyley Ewing TuTh 2:00pm - 2:50pm F 12:00pm - 12:50pm	Seats (Total: 25) MMH 1400 SQH 1111	Discussion
0103	Kyley Ewing TuTh 2:00pm - 2:50pm F 1:00pm - 1:50pm	Seats (Total: 25) MMH 1400 SQH 1101	Discussion
0104	Kyley Ewing TuTh 2:00pm - 2:50pm F 10:00am - 10:50am	Seats (Total: 25) MMH 1400 WDS 1114	Discussion
0105	Kyley Ewing TuTh 2:00pm - 2:50pm F 12:00pm - 12:50pm	Seats (Total: 25) MMH 1400 ASY 3221	Discussion
0106	Kyley Ewing TuTh 2:00pm - 2:50pm F 1:00pm - 1:50pm	Seats (Total: 25) MMH 1400 ASY 3211	Discussion
0201	Hallie Liberto MW 12:00pm - 12:50pm F 10:00am - 10:50am	Seats (Total: 25) TYD 2106 SQH 1105	Discussion
0202	Hallie Liberto MW 12:00pm - 12:50pm F 11:00am - 11:50am	Seats (Total: 25) TYD 2106 SQH 1105	Discussion
0203	Hallie Liberto MW 12:00pm - 12:50pm F 1:00pm - 1:50pm	Seats (Total: 25) TYD 2106 SQH 1105	Discussion

PHIL170 **Introduction to Logic**

Credits: 3 | Grading Method: Regular, Pass-Fail, Audit | CORE: MS | General Education: FSAR

This course will introduce the basic concepts and techniques of modern symbolic logic, with an emphasis on developing skills in two areas: first, translating between ordinary language and logical notation; second, establishing the validity or invalidity of arguments using the methods of truth tables, deductions, and countermodels. Although the subject of symbolic logic was developed by mathematicians and philosophers for their own special purposes (which we will discuss), logical concepts and techniques have found applications in a variety of disciplines, including computer science, economics, law, linguistics, and psychology. We may also consider some of these applications.

0101	Paolo Santorio MW 11:00am - 11:50am F 10:00am - 10:50am	Seats (Total: 25) PHY 1412 SQH 1101	Discussion
0102	Paolo Santorio MW 11:00am - 11:50am F 12:00pm - 12:50pm	Seats (Total: 25) PHY 1412 ASY 3215	Discussion
0103	Paolo Santorio MW 11:00am - 11:50am F 1:00pm - 1:50pm	Seats (Total: 25) PHY 1412 KEY 0102	Discussion
0104	Paolo Santorio MW 11:00am - 11:50am W 1:00pm - 1:50pm	Seats (Total: 25) PHY 1412 PLS 1146	Discussion
0105	Paolo Santorio MW 11:00am - 11:50am W 2:00pm - 2:50pm	Seats (Total: 25) PHY 1412 PLS 1146	Discussion
0106	Paolo Santorio MW 11:00am - 11:50am W 4:00pm - 4:50pm	Seats (Total: 25) PHY 1412 PLS 1146	Discussion

PHIL171 **Reasoning For Humans: Clear Thinking in an Uncertain World**

Credits: 3 | Grading Method: Regular, Pass-Fail, Audit | General Education: FSAR

Credit only granted for: PHIL171 or PHIL218A. Formerly: PHIL218A.

Reasoning is a transition in thought in which some beliefs or thoughts provide grounds or reasons for others. What makes certain transitions of thought rational or reasonable and others irrational or erratic is a major focus of investigation in diverse research areas, such as philosophy, logic, artificial intelligence, cognitive science, and psychology. This course is an introduction to logic and probability with a focus on applications to the study of the foundations of human reasoning.

0101	Eric Pacuit MW 12:00pm - 12:50pm F 10:00am - 10:50am	Seats (Total: 25) TYD 2109 SYM 0215	Discussion
0102	Eric Pacuit MW 12:00pm - 12:50pm F 12:00pm - 12:50pm	Seats (Total: 25) TYD 2109 TWS 1320	Discussion
0103	Eric Pacuit MW 12:00pm - 12:50pm F 1:00pm - 1:50pm	Seats (Total: 25) TYD 2109 JMZ 2207	Discussion

PHIL202 **Know Thyself: Wisdom Through Cognitive Science**

Credits: 3 | Grading Method: Regular, Pass-Fail, Audit | General Education: DSHS, DSHU, SCIS

Credit only granted for: PHIL209N or PHIL202. Formerly: PHIL209N.

How do we improve our decision making? Cognitive science demonstrates that self-knowledge isn't as easy as we think, and that there are numerous biases and fallacies that impact our decision-making in ways that are hard for us to be aware of. In this course you will learn what some of these are and how they have been discovered, and you will explore potential strategies for avoiding these fallacies and for making wiser choices.

0101	Peter Carruthers MW 2:00pm - 2:50pm F 10:00am - 10:50am	Seats (Total: 24) JMZ 0220 KNI 1103	Discussion
0102	Peter Carruthers MW 2:00pm - 2:50pm F 11:00am - 11:50am	Seats (Total: 24) JMZ 0220 KNI 1103	Discussion
0103	Peter Carruthers MW 2:00pm - 2:50pm F 1:00pm - 1:50pm	Seats (Total: 24) JMZ 0220 WDS 0104	Discussion
0104	Peter Carruthers MW 2:00pm - 2:50pm F 10:00am - 10:50am	Seats (Total: 24) JMZ 0220 JMZ 2120	Discussion

0105	Peter Carruthers MW 2:00pm - 2:50pm F 11:00am - 11:50am	Seats (Total: 24) JMZ 0220 HBK 1112	Discussion
0106	Peter Carruthers MW 2:00pm - 2:50pm F 1:00pm - 1:50pm	Seats (Total: 24) JMZ 0220 TLF 1101	Discussion

PHIL203 **The Rights and Wrongs of Killing People**

Credits: 3 | Grading Method: Regular, Pass-Fail, Audit | General Education: DSHU, SCIS

Credit only granted for: PHIL209J or PHIL203. Formerly: PHIL209J.

Virtually everyone thinks it's permissible to kill people only in special circumstances. But why is killing usually wrong? Is it ever acceptable to kill an innocent human being intentionally? This course raises these and related questions and examines cases such as terrorism, suicide, abortion, euthanasia, the death penalty, war. Except for a brief discussion of animals, all the controversies considered deal with killing and causing death to human beings.

0101	Daniel Blair TuTh 11:00am - 11:50am F 10:00am - 10:50am	Seats (Total: 24) MMH 1400 PLS 1119	Discussion
0102	Daniel Blair TuTh 11:00am - 11:50am F 12:00pm - 12:50pm	Seats (Total: 24) MMH 1400 PLS 1117	Discussion
0103	Daniel Blair TuTh 11:00am - 11:50am F 1:00pm - 1:50pm	Seats (Total: 24) MMH 1400 PLS 1117	Discussion
0104	Daniel Blair TuTh 11:00am - 11:50am F 1:00pm - 1:50pm	Seats (Total: 24) MMH 1400 ASY 3215	Discussion
0105	Daniel Blair TuTh 11:00am - 11:50am F 10:00am - 10:50am	Seats (Total: 24) MMH 1400 ATL 2316	Discussion

0106	Daniel Blair TuTh 11:00am - 11:50am F 11:00am - 11:50am	Seats (Total: 24) MMH 1400 CHE 2145	Discussion

PHIL209X **Philosophical Issues; Philosophy of Language and Logic**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

An examination of selected philosophical issues of general interest.

Contact department for information to register for this course.

PHIL220 **Bioethics: Regulating Right and Wrong**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit General Education: DSHU, DSSP

Credit only granted for: PHIL209A or PHIL220. Formerly: PHIL209A.

Bioethicists formulate ethical guidelines. They answer questions such as: When life-saving health resources are scarce, who should get them? Should we increase supply of one such resource, kidneys, by buying them from living "donors"? If drug trials in developing countries benefit patients who consent to participate, are the trials ethical, even if the same research would be forbidden in the US? If a sick person aims to hasten her death, how, if at all, might her doctor permissibly help her? In this course, students construct and defend ethical rules in four domains: research ethics, allocation of scarce resources, markets in organs, and physician-assisted dying.

0101	Aida Roige Mas TuTh 8:00am - 8:50am F 10:00am - 10:50am	Seats (Total: 25) TWS 0310 EDU 3315	Discussion
0102	Aida Roige Mas TuTh 8:00am - 8:50am F 11:00am - 11:50am	Seats (Total: 25) TWS 0310 EDU 3315	Discussion
0103	Aida Roige Mas TuTh 8:00am - 8:50am F 1:00pm - 1:50pm	Seats (Total: 25) TWS 0310 ASY 3219	Discussion

PHIL220H **Bioethics: Regulating Right and Wrong**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit General Education: DSHU, DSSP

Credit only granted for: PHIL209A or PHIL220. Formerly: PHIL209A.

Bioethicists formulate ethical guidelines. They answer questions such as: When life-saving health resources are scarce, who should get them? Should we increase supply of one such resource, kidneys, by buying them from living "donors"? If drug trials in developing countries benefit patients who consent to participate, are the trials ethical, even if the same research would be forbidden in the US? If a sick person aims to hasten her death, how, if at all, might her doctor permissibly help her? In this course, students construct and defend ethical rules in four domains: research ethics, allocation of scarce resources, markets in organs, and physician-assisted dying.

Restricted to Honors students.

0101	Aida Roige Mas	Seats (Total: 25)	
	TuTh 8:00am - 8:50am F 11:00am - 11:50am	TWS 0310 ASY 3203	Discussion

PHIL234 **Fundamental Concepts of Judaism**

Credits: 3 | Grading Method: Regular, Pass-Fail, Audit | CORE: HO | General Education: DSHU

Cross-listed with JWST250, RELS250. Credit only granted for: JWST250, PHIL234, or RELS250.

A conceptional introduction to Judaism, analyzing its fundamental concepts from both analytical and historical perspectives. Discussion of "normative" Judaism as well as other conceptions of Judaism. Topics include: God, the Jewish people, authority, ethics, the sacred and the profane, particularism and universalism.

0101	Charles Manekin	Seats (Total: 20)	
	TuTh 9:30am - 10:45am	SQH 1105	

PHIL261 **Philosophy of the Environment**

Credits: 3 | Grading Method: Regular, Pass-Fail, Audit | CORE: IE | General Education: DSHU

Credit only granted for: HONR218F or PHIL261. Formerly: HONR218F.

An evaluation of different kinds of arguments for the claim that the natural environment should be preserved. Perspectives cut across the disciplines of philosophy (environmental ethics and philosophies of nature); economics (cost-benefit analysis); and biology (evolution, ecology, environmental studies).

0101	Casey Enos	Seats (Total: 22)	
	Class time/details on ELMs F 10:00am - 10:50am	ONLINE SQH 2120	Discussion

0102	Casey Enos Class time/details on ELMs F 12:00pm - 12:50pm	Seats (Total: 22) ONLINE PLS 1162	Discussion
0103	Casey Enos Class time/details on ELMs F 1:00pm - 1:50pm	Seats (Total: 22) ONLINE PLS 1162	Discussion

PHIL269M **Special Topics in Study Abroad II; Moral Philosophy**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Special topics course taken as part of an approved study abroad program.

Contact department for information to register for this course.

PHIL269Y **Special Topics in Study Abroad II; Truth and Reality**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Special topics course taken as part of an approved study abroad program.

Contact department for information to register for this course.

PHIL269Z **Special Topics in Study Abroad II; Introduction to Continental Philosophy**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Special topics course taken as part of an approved study abroad program.

Contact department for information to register for this course.

PHIL282 **Free Will & Determinism**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit CORE: HO General Education: DSHU

A study of the main positions and arguments in the free will debate in contemporary analytic philosophy.

0101	Patricia Greenspan TuTh 12:30pm - 1:20pm F 10:00am - 10:50am	Seats (Total: 21) LEF 2166 CHE 2118	Discussion

0102	Patricia Greenspan TuTh 12:30pm - 1:20pm F 11:00am - 11:50am	Seats (Total: 21) LEF 2166 CHE 2118	Discussion
0103	Patricia Greenspan TuTh 12:30pm - 1:20pm F 1:00pm - 1:50pm	Seats (Total: 21) LEF 2166 CHE 2136	Discussion

PHIL318B **Studies in Epistemology/Metaphysics; The Wisdom of Crowds**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Problems, issues, and points of view in epistemology or metaphysics.

An investigation of how the ability to obtain knowledge can be enhanced or distorted by different kinds of social structures. We will look at classic work about how different kinds of interactions within groups create new ways of knowing or being deceived. We'll also look at recent work on the nature of disagreement, polarization, and the use of networks in scientific research.

0101	Daniel Blair MW 1:00pm - 1:50pm Class time/details on ELMs	Seats (Total: 30) LEF 1201 ONLINE

PHIL318E **Studies in Epistemology/Metaphysics; Philosophy Through Popular Film**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Problems, issues, and points of view in epistemology or metaphysics.

An exploration of philosophy through popular film. We will watch thought-provoking movies as a springboard to explore big philosophical questions about, for instance, what we can know, the nature of consciousness and AI, whether we have free will, what makes a person who they are over time, and what ethical responsibilities we have towards others.

0101	Heather Adair Class time/details on ELMs	Seats (Total: 25) ONLINE
0201	Heather Adair Class time/details on ELMs	Seats (Total: 25) ONLINE

PHIL318I **Studies in Epistemology/Metaphysics; Epistemology of Disagreement**

Credits: 3

Grading Method: Regular, Pass-Fail, Audit

Problems, issues, and points of view in epistemology or metaphysics.

A thorough introduction to the burgeoning research on peer disagreement. Questions include: Should I become less confident on my take on some issue if I learn that my equally informed and capable colleague disagrees with me? How do I decide which expert to trust when experts themselves seem to be in disagreement? What's the rational response to a disagreement involving religious belief? How does the work on rational disagreement relate to political disagreement?

0101	Aleks Knoks	Seats (Total: 30)
	Class time/details on ELMs	ONLINE

PHIL320 **Modern Philosophy**

Credits: 3

Grading Method: Regular, Pass-Fail, Audit

Prerequisite: 6 credits in PHIL courses.

A study of major philosophical issues of the 16th, 17th, and 18th centuries through an examination of such philosophers as Descartes, Newton, Hume, and Kant.

0101	Shen Pan	Seats (Total: 30)
	MW 4:00pm - 5:15pm	KEY 0126

PHIL328E **Studies in the History of Philosophy; EXISTENTIALISM AND HUMAN CONDITIONS**

Credits: 3

Grading Method: Regular, Pass-Fail, Audit

Problems, issues, and points of view in the history of philosophy.

A historical examination of existentialism in three parts; the origins o f the movement in the wriitngs of the Danish Christian Soren Kierkagaard and the German atheist Friedrich Nietzsche, the phenomenological turn an d focus on menaing in life in Heidegger, Sartre, and Camus, and finally existentialist approached to feminism and anti-black racism, as outlined in the work of Simone de Beauvoir and Frantz Fanon. We will also conside r poststructuralist commentaries on certain existentialist figures.

0101	Jeremiah Tillman	Seats (Total: 30)	
	TuTh 3:30pm - 4:20pm	KNI 1103	
	Class time/details on ELMs	ONLINE	Discussion

PHIL344 **Philosophy of Race**

Credits: 3 | Grading Method: Regular, Pass-Fail, Audit | General Education: DVUP

Credit only granted for: PHIL344 or PHIL308Y. Formerly: PHIL308Y.

A survey of philosophical arguments involving race and racism. Guiding questions will include: How have philosophers and scientists conceived of the concept of race? Is race a coherent concept? Does it help us explain differences in performance and behavior? What makes racism, racial prejudice, and discrimination wrong? What is the point of equality? Do we owe reparations to victims of racism?

0101	Sungwon Woo	Seats (Total: 30)
	Class time/details on ELMs	ONLINE

PHIL360 **Philosophy of Language**

Credits: 3 | Grading Method: Regular, Pass-Fail, Audit

Prerequisite: 2 courses in PHIL; and (PHIL170 or PHIL370). Or permission of ARHU-Philosophy department. Cross-listed with LING350. Credit only granted for: LING350 or PHIL360.

An inquiry into the nature and function of language and other forms of symbolism.

0101	Alexander Williams	Seats (Total: 20)
	TuTh 9:30am - 10:45am	TYD 2108

PHIL364 **Metaphysics**

Credits: 3 | Grading Method: Regular, Pass-Fail, Audit

Prerequisite: 6 credits in PHIL courses. Formerly: PHIL464.

The study of some central metaphysical concepts and issues including the nature and validity of metaphysical thinking, universals, identity, substance, time, God, and reality.

0101	Harjit Bhogal	Seats (Total: 30)
	TuTh 11:00am - 12:15pm	SQH 1101

PHIL386 **Experiential Learning**

(Perm req)

Credits: 6 | Grading Method: Regular, Pass-Fail

Restriction: Permission of ARHU-Philosophy department; and junior standing or higher.

Consult Director of Undergraduate Studies: C. Manekin. Prerequisites: 12 credit hours of philosophy and 3.0 GPA. Carries no credit toward philosophy major.

Contact department for information to register for this course.

PHIL408R **The Practice of Philosophy: How To Develop Your Own Work**

Credits: 3 | Grading Method: Regular, Pass-Fail, Audit | General Education: DSSP

Prerequisite: Three upper-level (300- or 400-level) courses in philosophy or permission of the instructor. Credit only granted for: PHIL408R or PHIL490. Formerly: PHIL408R.

Writing philosophical papers, presenting them to an audience, and responding critically and constructively to the papers and talks of others are skills central to the practice of philosophy. This course will help students to enhance those skills in a seminar-style format. Students should come to the course with a paper of their own (likely from another course) that they would like to develop.

Prerequisites: Three upper-level (300- or 400-level) courses in philosophy or permission of the instructor. The skills of writing philosophical papers, presenting them to an audience, and learning to respond critically and constructively to the papers and talks of others are central to the craft of philosophy. This course will pursue the development of those skills in a seminar-style format. Students should come to the course with a paper (likely from another course) that they would like to develop and refine further.

0101	Georges Rey TuTh 12:30pm - 1:45pm	Seats (Total: 20) SKN 1116

PHIL417 **The Golden Age of Jewish Philosophy**

Credits: 3 | Grading Method: Regular, Pass-Fail, Audit | General Education: DSHU

Prerequisite: 3 credits in PHIL courses; or permission of ARHU-Meyerhoff Program & Center for Jewish Studies; or permission of ARHU-Philosophy department. Cross-listed with JWST452. Credit only granted for: JWST452 or PHIL417.

Jewish philosophy from Maimonides in the 12th century to the expulsion of the Jews from Spain at the end of the 15th century. Topics include the limitations of human knowledge, creation of the world, foreknowledge and free will, and the existence of God.

0101	Charles Manekin Tu 4:30pm - 6:00pm Class time/details on ELMs	Seats (Total: 20) SKN 1112 ONLINE

PHIL418I **Topics in Epistemology/Metaphysics; Causation, Chance and Law**

Credits: 3

Grading Method: Regular, Pass-Fail, Audit

An intensive examination of contemporary problems and issues in epistemology or metaphysics. Source material will be selected from recent books and articles.

You see a billiard ball hit another, and you see the second ball move and fall in the corner pocket. It's natural to judge that the first ballcaused the second ball to fall, but what is it for one event to cause another? This course will investigate the nature of causation and the related notions of chance and laws of nature, with a focus on contemporary metaphysics and philosophy of science.

0101	Paolo Santorio	Seats (Total: 25)
	MW 3:30pm - 4:45pm	ASY 3221

PHIL418K **Topics in Epistemology/Metaphysics; Entanglement and Non-Locality in Quantum Mechanics**

Credits: 3

Grading Method: Regular, Pass-Fail, Audit

An intensive examination of contemporary problems and issues in epistemology or metaphysics. Source material will be selected from recent books and articles.

Prerequisites: At least two courses in philosophy at the 300- or 400-level or permission of the instructor. Schrodinger described quantum entanglement as "the characteristic trait of quantum mechanics, the one that enforces its entire departure from classical lines of thought." This course will explore some of the puzzles that entanglement raises about the nature of the quantum world. The material does not require extensive background in physics, but it does require comfort with mathematical abstraction.

0101	Allen Stairs	Seats (Total: 25)
	MW 2:00pm - 3:15pm	SQH 1111

PHIL428A **Topics in the History of Philosophy; Postcolonialism**

Credits: 3

Grading Method: Regular, Pass-Fail, Audit

Cross-listed with ANTH469L, AMST498F, ENGL479O, LASC448K, and HIST419L. Credit only granted for HIST419L, ANTH469L, AMST498F, ENGL479O, LASC448K, or PHIL428A.

0101	James Maffie	Seats (Total: 40)
	TuTh 3:30pm - 4:45pm	KEY 0116

PHIL445 **Contemporary Political Philosophy**

Credits: 3

Grading Method: Regular, Pass-Fail, Audit

Restriction: Must have completed 3 credits in philosophy or political theory; or permission of ARHU-Philosophy department. And sophomore standing or higher.

Major trends in contemporary political philosophy: liberal, libertarian, communitarian, socialist, feminist.

0101	Dan Moller	Seats (Total: 25)	
	MW 10:00am - 10:50am Class time/details on ELMs	WDS 0104 ONLINE	Discussion

PHIL469Y **Study Abroad Special Topics IV; Philosophy of Science II**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Special topics course taken as part of an approved study abroad program.

Contact department for information to register for this course.

PHIL478E **Topics in Philosophical Logic; CONDITIONALS: LOGIC AND LANGUAGE**

Credits: 3 Grading Method: Regular, Pass-Fail

Philosophical logics result from the application of formal techniques to problems of philosophical interest; these logics often have applications in other areas as well, such as AI, linguistics, psychology, economics, and law. This course will either concentrate on a particular family of philosophical logics (such as modal or temporal or defeasible logics) or else survey a number different logical systems.

Prerequisite: PHIL170 or permission of the instructor. The truth conditions for material conditionals require that if the antecedent is false, the conditional is true. Suppose you didn't raise an eyebrow when you learned this. On this analysis, it's true that if you DID raise an eyebrow, the sun will explode! This course examines ways of tackling such so-called "paradoxes of material implication." We will focus on indicative conditionals (e.g., "If Oswald didn't kill Kennedy, someone else did"), and counterfactuals (e.g., "If Oswald killed Kennedy, someone else would have"). Other topics will include onditional speech acts and the psychology of conditional reasoning.

0101	Yichi Zhang	Seats (Total: 25)	
	MW 10:00am - 10:50am Class time/details on ELMs	LEF 1220 ONLINE	Discussion

PHIL498F **Topical Investigations; Topical Investigation**

(Perm req)

Credits: 1-3 Grading Method: Regular, Pass-Fail, Audit

Prerequisite:Two courses in philosophy or permission of the department.

Contact department for information to register for this course.

PHIL498G **Topical Investigations; Topical Investigation**

(Perm req)

Credits: 1-3 Grading Method: Regular, Pass-Fail, Audit

Prerequisite:Two courses in philosophy or permission of the department.

Contact department for information to register for this course.

PHIL498Z **Topical Investigations; Realism and Idealism**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Contact department for information to register for this course.

PHIL660 **Metaphysics, Mind, and Language**

Credits: 3 Grading Method: Regular, Audit, Sat-Fail

A basic course on selected issues in metaphysics, philosophy of mind, and philosophy of language for beginning graduate students, covering a number of topics in depth, to provide a springboard for further study and research in the area.

0101	Georges Rey	Seats (Total: 10)
	Th 4:40pm - 7:10pm	SKN 1116

PHIL788G **Research in Philosophy; Research in Philosophy**

(Perm req)

Credits: 1-6 Grading Method: Regular, Audit, Sat-Fail

Contact department for information to register for this course.

PHIL788I **Research in Philosophy; Research in Philosophy**

(Perm req)

Credits: 1-6 Grading Method: Regular, Audit, Sat-Fail

Contact department for information to register for this course.

PHIL799 **Master's Thesis Research; Masters Thesis Research**

Credits: 1-6 Grading Method: Sat-Fail

Contact department for information to register for this course.

PHIL808J **Seminar in the Problems of Philosophy; Reading "New Work For a Theory of Universals"**

Credits: 3 Grading Method: Regular, Audit, Sat-Fail

0101	Harjit Bhogal W 2:00pm - 4:30pm	Seats (Total: 10) SKN 1116

PHIL848P **Seminar in Ethics; Philosophers on Love**

Credits: 3 Grading Method: Regular, Audit, Sat-Fail

Since Plato's *Symposium* philosophers have expressed different views of love, considered mainly as a relationship (covering friendship as well as romantic love) that might or might not be expressed in emotion. Our emphasis will be on contemporary work, starting with Frankfurt's attempt to characterize love in terms of the desire to benefit the love-object -thought of as "active" in a sense that would satisfy Kant. We'll go on to explore other authors' objections and alternatives to Frankfurt and eventually to consider love as an emotion.

0101	Patricia Greenspan Tu 4:40pm - 7:10pm	Seats (Total: 10) SKN 1116

PHIL858K **Seminar in Logic and Philosophy of Sciences; Preference and Judgement Aggregation**

Credits: 3 Grading Method: Regular, Audit, Sat-Fail

0101	Eric Pacuit M 2:00pm - 4:30pm	Seats (Total: 10) SKN 1116

PHIL888 **Professional Mentoring for Doctoral Students**

Credits: 1-3 Grading Method: Sat-Fail

Work with a faculty advisor on various aspects of professional development.

Contact department for information to register for this course.

PHIL889 **Pedagogical Mentoring for Doctoral Students**

(Perm req)

Credits: 1-3 Grading Method: Sat-Fail

Work with a faculty advisor to develop and improve pedagogical skills.

Contact department for information to register for this course.

PHIL898 **Pre-Candidacy Research**

Credits: 1-8 Grading Method: Regular, Sat-Fail

Contact department for information to register for this course.

PHIL899 **Doctoral Dissertation Research; Doctoral Dissertation Research**

(Perm req)

Credits: 6 Grading Method: Sat-Fail

Contact department for information to register for this course.

PHPE Philosophy, Politics, and Economics Spring 2020

PHPE401 **Social Philosophy and Political Economy**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

This course examines capitalism and socialism as differing modes of economic production through several different theoretical lenses. We begin by examining capitalism and socialism as they developed historically, by looking primarily at the work of Adam Smith and Karl Marx. Then, we turn our attention to one of the most important debates in 20th century economics: to what extent rational economic calculation is possible in a socialist commonwealth. After this we turn our attention to how capitalist and socialist modes of production functioned in practice. We end by turning our attention to the ethics of capitalism and socialism: which mode of economic production is most just?

0101	Christopher Morris	Seats (Total: 25)
	TuTh 2:00pm - 3:15pm	ESJ B0320

PHSC Public Health Science Spring 2020

PHSC389 **Independent Research Study in Public Health Science**

(Perm req)

Credits: 1-6 Grading Method: Regular, Pass-Fail

This independent research-based experience will provide the opportunity for students to work with individual research mentors in the area of Public Health Science. Students must identify a mentor prior to obtaining departmental permission.

0101	Nancy Smith	Seats (Total: 30)
	Contact instructor or department for details.	
	Restricted to students in Public Health Science (12140) major at College Park only.	
ESG1	Nancy Smith	Seats (Total: 15)
	Contact instructor or department for details.	
	Restricted to students in Public Health Science (12140) major at Shady Grove only.	

PHSC399 **Public Health Science Internship**

(Perm req)

Credits: 1-6

Grading Method: Regular, Pass-Fail

The Public Health Science internship will enable students to gain practical experience under conditions conducive to academic, research and professional development. The internship is a time-limited, supervised period of public health professional experience carried out in a related professional organization or research setting.

0101	Nancy Smith	Seats (Total: 30)
	Contact instructor or department for details.	
	Restricted to students in Public Health Science (12140) major atajor College Park only.	
ESG1	Nancy Smith	Seats (Total: 20)
	Contact instructor or department for details.	
	Restricted to students in Public Health Science (12140) major at Shady Grove only.	

PHSC401 **History of Public Health**

Credits: 3

Grading Method: Regular, Pass-Fail

Restriction: Must be in Public Health Science program; and must have earned a minimum of 45 credits. Credit only granted for: PHSC401 or SPHL401. Formerly: SPHL401.

Emphasis is on the history of public health in the Western world from antiquity to the present. Also examines the influence of public health developments as they relate to the Western world as well as throughout diverse cultures and societies across the globe. Analysis focuses on the interaction among Western and non-Western cultures with respect to health issues, including science, policies, prevention and treatment.

0101	Marian Jones, Lauren Ramsey	Seats (Total: 35)
	TuTh 12:30pm - 1:45pm	HBK 0103
	Restricted to College Park students in the Public Health Science major (code 12140).	
ESG1	Eric Boyle	Seats (Total: 35)
	W 6:00pm - 8:30pm	BLD3 3206
	Restricted to Shady Grove students in the Public Health Science major.	

PHSC412 **Food, Policy, and Public Health**

Credits: 3

Grading Method: Regular, Pass-Fail

Prerequisite: Must have completed HLSA300 with a C- or higher. Recommended: NFSC100. Restriction: Must be in Public Health Science program; and junior standing or higher. Credit only granted for: PHSC412 or SPHL412. Formerly: SPHL412.

Broad overview of the impact of food and food policy on public health. Course covers topics such as access to food, food systems, influence of food policies on the individual, the cost of food, influences on food selection, food safety risks and responses, nutrition-related health challenges, and a comparison of US food/nutrition issues with those of other nations.

0101	Michael Bazaco Tu 6:00pm - 8:30pm	Seats (Total: 10) SPH 0225	
	This course is taught at Shady Grove with remote access offered to Coll ge Park students via videoconference technology.		
ESG1	Michael Bazaco Tu 6:00pm - 8:30pm	Seats (Total: 25) BLD3 2131	
	Restricted to Shady Grove students in the Public Health Sciences major.		

PHSC415 **Essentials of Public Health Biology: The Cell, The Individual, and Disease**

Credits: 3 Grading Method: Regular, Pass-Fail

Prerequisite: Minimum grade of C- in BSCI202. Recommended: BSCI223. Restriction: Must be in Public Health Science program; and junior standing or higher. Credit only granted for: PHSC415, SPHL415 or SPHL498J. Formerly: SPHL415 and SPHL498J.

Presents the basic scientific and biomedical concepts of modern public health problems and explores in depth mechanisms and models of the major categories of disease. The biologic principles presented are foundations to public health disease prevention, control, or management programs.

0101	Jessica O'Hara MW 1:00pm - 1:50pm W 2:00pm - 2:50pm	Seats (Total: 20) ESJ 2208 SPH 0121	 Discussion
	Restricted to College Park students in the Public Health Science major (code 12140).		
0102	Jessica O'Hara MW 1:00pm - 1:50pm W 3:00pm - 3:50pm	Seats (Total: 20) ESJ 2208 SPH 0121	 Discussion
	Restricted to College Park students in the Public Health Science major (code: 12140).		
0103	Jessica O'Hara MW 1:00pm - 1:50pm W 4:00pm - 4:50pm	Seats (Total: 20) ESJ 2208 SPH 0121	 Discussion

0104	Jessica O'Hara MW 1:00pm - 1:50pm Th 9:30am - 10:20am	Seats (Total: 20) ESJ 2208 SPH 0116A	Discussion
	Restricted to College Park students in the Public Health Science major (code: 12140).		
0105	Jessica O'Hara MW 1:00pm - 1:50pm Th 11:00am - 11:50am	Seats (Total: 20) ESJ 2208 SPH 0116A	Discussion
	Restricted to College Park students in the Public Health Science major (code: 12140).		
0106	Jessica O'Hara MW 1:00pm - 1:50pm Th 12:30pm - 1:20pm	Seats (Total: 20) ESJ 2208 SPH 0116A	Discussion
	Restricted to College Park students in the Public Health Science major (code: 12140).		
0107	Jessica O'Hara MW 1:00pm - 1:50pm Th 2:00pm - 2:50pm	Seats (Total: 20) ESJ 2208 SPH 0116A	Discussion
	Restricted to College Park students in the Public Health Science major (code: 12140).		

PHSC440 **Public Health Nutrition**

Credits: 3 Grading Method: Regular, Pass-Fail

Prerequisite: A minimum of C- in BSCI170, BSCI171, CHEM131, CHEM132 and EPIB301. Restriction: Must be in Public Health Science program. Credit only granted for: PHSC440 or NFSC498L.

Engages students in conceptual thinking about the relationship between public health and nutritional health. Students will analyze and interpret "A Framework for Public Health Nutrition." Students will identify determinants of nutritional health, assess nutritional health in individuals and populations, develop strategies to mitigate these issues, and analyze and evaluate public health nutrition policies.

0101	Kendall Bustad Class time/details on ELMs	Seats (Total: 30) ONLINE	
	Restricted to students in Public Health Science (12140) major at College Park only.		
ESG1	Kendall Bustad Class time/details on ELMs	Seats (Total: 5) ONLINE	
	Restricted to students in Public Health Science (12140) major at Shady Grove only.		

PHSC497 Public Health Science Capstone

Credits: 3 | Grading Method: Regular, Pass-Fail | General Education: DSSP

Prerequisite: Must have completed the professional writing requirement with a C- or higher; and minimum grade of C- in MIEH400. Restriction: Must have earned a minimum of 100 credits; and must be in Public Health Science program; and must be in the final semester of undergraduate study. Credit only granted for: SPHL498F or PHSC497. Formerly: SPHL498F.

The capstone course is the culminating experience for Public Health Science students and must be taken only in the final semester of study. The Public Health Science capstone course is designed to challenge students to integrate the five core areas of public health in investigating, researching and addressing public health issues. Throughout the semester, students will be required to evaluate, analyze and synthesize scholarly works as they research and propose solutions to a variety of public health issues. By the conclusion of this research based course, students will understand how the various public health perspectives can combine in addressing and informing public health practices.

0101	Kendall Bustad M 4:00pm - 6:30pm	Seats (Total: 20) SPH 0116B
	Restricted to College Park students in the Public Health Science major (code 12140).	
0201	Ellesse-Roselee Akre M 6:00pm - 8:30pm	Seats (Total: 20) SPH 0121
	Restricted to College Park students in the Public Health Science major (code 12140).	
0301	Alyssa Brooks Tu 5:00pm - 7:30pm	Seats (Total: 20) SPH 0303
	Restricted to College Park students in the Public Health Science major (code 12140).	
0401	Kevin Glasz Tu 4:00pm - 6:30pm	Seats (Total: 20) SPH 0121
	Restricted to College Park students in the Public Health Science major (code 12140).	
0501	Allison Hanley W 4:00pm - 6:30pm	Seats (Total: 20) SPH 0302
	Restricted to College Park students in the Public Health Science major (code 12140).	
0601	Nancy Smith W 4:00pm - 6:30pm	Seats (Total: 20) SPH 0227
	Restricted to College Park students in the Public Health Science major (code 12140). In this Capstone section, students will practice scholarly research and writing in the process of developing a grant proposal to address a public health need.	

0701	Kevin Glasz Th 4:00pm - 6:30pm	Seats (Total: 20) SPH 0121
	Restricted to College Park students in the Public Health Science major (code 12140).	
0801	Liz Bell Th 6:00pm - 8:30pm	Seats (Total: 20) SPH 0227
	Restricted to College Park students in the Public Health Science major (code 12140).	
0901	Dana Reiss Tu 4:00pm - 6:30pm	Seats (Total: 20) SPH 0227
	Restricted to College Park students in the Public Health Science major (code 12140).	
1001	Carmen Booker Th 6:00pm - 8:30pm	Seats (Total: 20) SPH 0225
	Restricted to College Park students in the Public Health Science major (code 12140).	
1101	Eric Boyle M 6:00pm - 8:30pm	Seats (Total: 20) SPH 0225
1201	Christopher Howard Th 4:00pm - 6:30pm	Seats (Total: 20) TWS 1105
ESG1	Alyssa Brooks M 5:00pm - 7:30pm	Seats (Total: 20) BLD3 3220
	Restricted to Shady Grove students in the Public Health Sciences major.	

PHYS Physics Spring 2020

PHYS106 **Light, Perception, Photography, and Visual Phenomena**

Credits: 3 | Grading Method: Regular, Pass-Fail, Audit | General Education: DSNL (if taken with PHYS107)

Intended for the general student, this course will cover topics in optics which require minimal use of mathematics. Principles of optics, lenses, cameras, lasers and holography, physics of the eye, color vision and various visual phenomena such as rainbows.

0101	Theodore L Einstein MWF 2:00pm - 2:50pm	Seats (Total: 155) PHY 1410

PHYS107 **Light, Perception, Photography and Visual Phenomena Laboratory**

Credits: 1 | Grading Method: Regular, Pass-Fail, Audit

Optional laboratory to accompany PHYS106. Laboratory experiments include geometrical optics (lenses, cameras, eye), optical instruments (telescope, binoculars), photography, perception, color phenomena, and wave phenomena.

0101	Anwar Bhatti M 3:00pm - 4:50pm	Seats (Total: 24) PHY 3214	 Lab
0301	Anwar Bhatti Tu 1:00pm - 2:50pm	Seats (Total: 24) PHY 3214	 Lab

PHYS111 **Physics in the Modern World**

Credits: 3 | Grading Method: Regular, Pass-Fail, Audit | CORE: PS

A survey course in general physics emphasizing the role that physics plays in science, technology, and society today. The course is concept oriented and minimal use of mathematics is made. Intended for the general student; does not satisfy the requirements of the professional schools.

Contact department for information to register for this course.

PHYS121 **Fundamentals of Physics I**

Credits: 4 | Grading Method: Regular, Pass-Fail, Audit | CORE: PL | General Education: DSNL

Prerequisite: MATH112 or MATH115. Credit only granted for: PHYS121, PHYS131, or PHYS331.

The first part of a two-semester course in general physics treating the fields of mechanics, heat, sound, electricity, magnetism, optics, and modern physics. Together with PHYS122, this generally satisfies the minimum requirement of medical and dental schools.

Physics Clinic, PHY 1214, MTWHF 12,2. If purchasing used books additional software may be required. Students must pay a $50.00 lab materials fee.

0301	Wendell Hill MWF 3:00pm - 3:50pm M 11:00am - 12:50pm M 10:00am - 10:50am	Seats (Total: 28) PHY 1412 PHY 3306 PLS 1113	 Lab Discussion
0302	Wendell Hill MWF 3:00pm - 3:50pm Tu 1:00pm - 2:50pm Tu 12:00pm - 12:50pm	Seats (Total: 28) PHY 1412 PHY 3306 HBK 0123	 Lab Discussion

0303	Wendell Hill	Seats (Total: 28)	
	MWF 3:00pm - 3:50pm	PHY 1412	
	Th 12:00pm - 1:50pm	PHY 3306	Lab
	Th 11:00am - 11:50am	PHY 4221	Discussion
0304	Wendell Hill	Seats (Total: 28)	
	MWF 3:00pm - 3:50pm	PHY 1412	
	Th 4:00pm - 5:50pm	PHY 3306	Lab
	Th 3:00pm - 3:50pm	MTH 0106	Discussion
0305	Wendell Hill	Seats (Total: 28)	
	MWF 3:00pm - 3:50pm	PHY 1412	
	Tu 5:00pm - 6:50pm	PHY 3306	Lab
	Tu 4:00pm - 4:50pm	MTH 0401	Discussion
0306	Wendell Hill	Seats (Total: 28)	
	MWF 3:00pm - 3:50pm	PHY 1412	
	Tu 10:00am - 11:50am	PHY 3306	Lab
	Tu 9:00am - 9:50am	PHY 4221	Discussion
0307	Wendell Hill	Seats (Total: 28)	
	MWF 3:00pm - 3:50pm	PHY 1412	
	W 11:00am - 12:50pm	PHY 3306	Lab
	W 10:00am - 10:50am	PHY 1402	Discussion
0308	Wendell Hill	Seats (Total: 5)	
	MWF 3:00pm - 3:50pm	PHY 1412	
	Tu 7:00pm - 8:50pm	PHY 3306	Lab
	Tu 6:00pm - 6:50pm	PHY 1402	Discussion
0401	Negar Heidarian Boroujeni	Seats (Total: 28)	
	M 7:00pm - 8:50pm	PHY 1412	
	W 7:00pm - 7:50pm	PHY 1412	
	M 5:00pm - 6:50pm	PHY 3306	Lab
	W 8:00pm - 8:50pm	PHY 1204	Discussion
0402	Negar Heidarian Boroujeni	Seats (Total: 19)	
	M 7:00pm - 8:50pm	PHY 1412	
	W 7:00pm - 7:50pm	PHY 1412	
	W 8:00pm - 9:50pm	PHY 3306	Lab
	M 9:00pm - 9:50pm	PHY 1219	Discussion

0403	Negar Heidarian Boroujeni	Seats (Total: 28)	
	M 7:00pm - 8:50pm	PHY 1412	
	W 7:00pm - 7:50pm	PHY 1412	
	W 5:00pm - 6:50pm	PHY 3306	Lab
	W 4:00pm - 4:50pm	PHY 4221	Discussion
0405	Negar Heidarian Boroujeni	Seats (Total: 28)	
	M 7:00pm - 8:50pm	PHY 1412	
	W 7:00pm - 7:50pm	PHY 1412	
	Th 6:00pm - 7:50pm	PHY 3306	Lab
	Th 5:00pm - 5:50pm	PHY 1402	Discussion
0408	Negar Heidarian Boroujeni	Seats (Total: 23)	
	M 7:00pm - 8:50pm	PHY 1412	
	W 7:00pm - 7:50pm	PHY 1412	
	Tu 7:00pm - 8:50pm	PHY 3306	Lab
	Tu 6:00pm - 6:50pm	PHY 4222	Discussion
SES1	Negar Heidarian Boroujeni	Seats (Total: 8)	
	M 7:00pm - 8:50pm	PHY 1410	
	W 7:00pm - 7:50pm	PHY 1410	
	W 8:00pm - 9:50pm	PHY 3306	Lab
	M 9:00pm - 9:50pm	PHY 1219	Discussion
	Restricted to students in the SIE Program. Click here for more information.		

PHYS122 **Fundamentals of Physics II**

Credits: 4 | Grading Method: Regular, Pass-Fail, Audit | CORE: PL | General Education: DSNL

Prerequisite: PHYS121; or students who have taken courses with comparable content may contact the department. Credit only granted for: PHYS122, PHYS132, or PHYS332.

A continuation of PHYS121, which together with it, generally satisfies the minimum requirement of medical and dental schools.

Physics Clinic, PHY 1214, MTWHF 11,2. If purchasing used books additional software may be required. Students must pay a $50.00 lab materials fee.

0301	Negar Heidarian Boroujeni	Seats (Total: 24)	
	TuTh 3:30pm - 4:45pm	PHY 1410	
	Th 10:00am - 11:50am	PHY 3314	Lab
	Th 9:00am - 9:50am	HBK 0109	Discussion

0302	Negar Heidarian Boroujeni	Seats (Total: 24)	
	TuTh 3:30pm - 4:45pm	PHY 1410	
	Th 12:00pm - 1:50pm	PHY 3314	Lab
	Th 11:00am - 11:50am	CHM 0122	Discussion
0303	Negar Heidarian Boroujeni	Seats (Total: 24)	
	TuTh 3:30pm - 4:45pm	PHY 1410	
	M 2:00pm - 3:50pm	PHY 3314	Lab
	M 1:00pm - 1:50pm	PHY 0405	Discussion
0304	Negar Heidarian Boroujeni	Seats (Total: 24)	
	TuTh 3:30pm - 4:45pm	PHY 1410	
	W 2:00pm - 3:50pm	PHY 3314	Lab
	W 1:00pm - 1:50pm	PHY 1204	Discussion
0502	Negar Heidarian Boroujeni	Seats (Total: 24)	
	Tu 7:00pm - 8:50pm	PHY 1410	
	Th 7:00pm - 7:50pm	PHY 1410	
	Tu 5:00pm - 6:50pm	PHY 3314	Lab
	Tu 4:00pm - 4:50pm	MTH 0106	Discussion
0503	Negar Heidarian Boroujeni	Seats (Total: 24)	
	Tu 7:00pm - 8:50pm	PHY 1410	
	Th 7:00pm - 7:50pm	PHY 1410	
	M 7:00pm - 8:50pm	PHY 3314	Lab
	M 6:00pm - 6:50pm	PHY 0405	Discussion
SES1	Negar Heidarian Boroujeni	Seats (Total: 24)	
	Tu 7:00pm - 8:50pm	PHY 1410	
	Th 7:00pm - 7:50pm	PHY 1410	
	Th 8:00pm - 9:50pm	PHY 3314	Lab
	Tu 9:00pm - 9:50pm	PHY 1402	Discussion
	Restricted to students in the SIE Program. Click here for more information.		

PHYS131 **Fundamentals of Physics for Life Sciences I**

Credits: 4 Grading Method: Regular, Pass-Fail, Audit

Prerequisite: CHEM131; and (MATH131 or MATH136); and (BSCI160 and BSCI161; or BSCI106); and (BSCI170 and BSCI171; or BSCI105). Or students who have taken courses with comparable content may contact the department. Credit only granted for: PHYS121, PHYS131, or PHYS331.

The first part of a two-semester course in general physics specifically oriented towards applications relevant for students in biology and pre-medical programs. The course covers basic mechanics including forces and energy, properties of matter, and thermodynamics done in authentic biological contexts.

Students must pay a $50.00 lab materials fee.

0101	David Buehrle	Seats (Total: 24)	
	TuTh 11:00am - 12:15pm	ESJ 2204	
	W 10:00am - 11:50am	PHY 3310	Lab
	W 9:00am - 9:50am	PHY 3310	Discussion
0102	David Buehrle	Seats (Total: 24)	
	TuTh 11:00am - 12:15pm	ESJ 2204	
	M 10:00am - 11:50am	PHY 3310	Lab
	M 9:00am - 9:50am	PHY 3310	Discussion
0103	David Buehrle	Seats (Total: 24)	
	TuTh 11:00am - 12:15pm	ESJ 2204	
	Th 3:00pm - 4:50pm	PHY 3310	Lab
	Th 2:00pm - 2:50pm	PHY 3310	Discussion
0104	David Buehrle	Seats (Total: 24)	
	TuTh 11:00am - 12:15pm	ESJ 2204	
	M 6:00pm - 7:50pm	PHY 3310	Lab
	M 5:00pm - 5:50pm	PHY 3310	Discussion
0201	David Buehrle	Seats (Total: 24)	
	MWF 11:00am - 11:50am	ESJ 1202	
	Tu 10:00am - 11:50am	PHY 3310	Lab
	Tu 9:00am - 9:50am	PHY 3310	Discussion
0202	David Buehrle	Seats (Total: 24)	
	MWF 11:00am - 11:50am	ESJ 1202	
	W 3:00pm - 4:50pm	PHY 3310	Lab
	W 2:00pm - 2:50pm	PHY 3310	Discussion
0203	David Buehrle	Seats (Total: 24)	
	MWF 11:00am - 11:50am	ESJ 1202	
	M 3:00pm - 4:50pm	PHY 3310	Lab
	M 2:00pm - 2:50pm	PHY 3310	Discussion

0204	David Buehrle	Seats (Total: 24)	
	MWF 11:00am - 11:50am	ESJ 1202	
	Tu 6:00pm - 7:50pm	PHY 3310	Lab
	Tu 5:00pm - 5:50pm	PHY 3310	Discussion

PHYS132 **Fundamentals of Physics for Life Sciences II**

Credits: 4 Grading Method: Regular, Pass-Fail, Audit

Prerequisite: PHYS131; or students who have taken courses with comparable content may contact the department. Credit only granted for: PHYS122, PHYS132, or PHYS332.

The second part of a two-semester course in general physics specifically oriented towards applications relevant for students in biology and pre-medical programs. The course covers basic statistical physics, electricity and magnetism, and optics done in authentic biological contexts.

Students must pay a $50.00 lab materials fee.

0101	David Buehrle	Seats (Total: 24)	
	MWF 10:00am - 10:50am	ARM 0135	
	M 12:00pm - 1:50pm	PHY 3312	Lab
	M 11:00am - 11:50am	PHY 3312	Discussion
0102	David Buehrle	Seats (Total: 24)	
	MWF 10:00am - 10:50am	ARM 0135	
	W 12:00pm - 1:50pm	PHY 3312	Lab
	W 11:00am - 11:50am	PHY 3312	Discussion
0103	David Buehrle	Seats (Total: 24)	
	MWF 10:00am - 10:50am	ARM 0135	
	Tu 12:00pm - 1:50pm	PHY 3312	Lab
	Tu 11:00am - 11:50am	PHY 3312	Discussion
0104	David Buehrle	Seats (Total: 24)	
	MWF 10:00am - 10:50am	ARM 0135	
	Tu 3:00pm - 4:50pm	PHY 3312	Lab
	Tu 2:00pm - 2:50pm	PHY 3312	Discussion
0105	David Buehrle	Seats (Total: 24)	
	MWF 10:00am - 10:50am	ARM 0135	
	Th 9:00am - 10:50am	PHY 3312	Lab
	Th 8:00am - 8:50am	PHY 3312	Discussion

0106	David Buehrle	Seats (Total: 24)	
	MWF 10:00am - 10:50am	ARM 0135	
	Th 12:00pm - 1:50pm	PHY 3312	Lab
	Th 11:00am - 11:50am	PHY 3312	Discussion
0107	David Buehrle	Seats (Total: 24)	
	MWF 10:00am - 10:50am	ARM 0135	
	Tu 6:00pm - 7:50pm	PHY 3312	Lab
	Tu 5:00pm - 5:50pm	PHY 3312	Discussion
0108	David Buehrle	Seats (Total: 24)	
	MWF 10:00am - 10:50am	ARM 0135	
	W 6:00pm - 7:50pm	PHY 3312	Lab
	W 5:00pm - 5:50pm	PHY 3312	Discussion
0201	Edward Redish	Seats (Total: 24)	
	TuTh 12:30pm - 1:45pm	ESJ 2204	
	Tu 9:00am - 10:50am	PHY 3312	Lab
	Tu 8:00am - 8:50am	PHY 3312	Discussion
0202	Edward Redish	Seats (Total: 24)	
	TuTh 12:30pm - 1:45pm	ESJ 2204	
	W 3:00pm - 4:50pm	PHY 3312	Lab
	W 2:00pm - 2:50pm	PHY 3312	Discussion
0203	Edward Redish	Seats (Total: 24)	
	TuTh 12:30pm - 1:45pm	ESJ 2204	
	M 3:00pm - 4:50pm	PHY 3312	Lab
	M 2:00pm - 2:50pm	PHY 3312	Discussion
0204	Edward Redish	Seats (Total: 24)	
	TuTh 12:30pm - 1:45pm	ESJ 2204	
	W 9:00am - 10:50am	PHY 3312	Lab
	W 8:00am - 8:50am	PHY 3312	Discussion
0205	Edward Redish	Seats (Total: 24)	
	TuTh 12:30pm - 1:45pm	ESJ 2204	
	Th 3:00pm - 4:50pm	PHY 3312	Lab
	Th 2:00pm - 2:50pm	PHY 3312	Discussion

PHYS161 General Physics: Mechanics and Particle Dynamics

Credits: 3	Grading Method: Regular, Pass-Fail, Audit	CORE: PS	General Education: DSNS

Prerequisite: Must have completed or be concurrently enrolled in MATH141. Credit only granted for: PHYS141, PHYS161, or PHYS171.

First semester of a three-semester calculus-based general physics course. Laws of motion, force, and energy; principles of mechanics, collisions, linear momentum, rotation, and gravitation.

Physics Clinic, PHY 1214, MTWHF 11, 1, 2. If purchasing used books additional software may be required.

0101	David Buehrle TuTh 2:00pm - 3:15pm M 9:00am - 9:50am	Seats (Total: 30) PHY 1412 PHY 1219	Discussion
0102	David Buehrle TuTh 2:00pm - 3:15pm W 4:00pm - 4:50pm	Seats (Total: 30) PHY 1412 MTH 0105	Discussion
0103	David Buehrle TuTh 2:00pm - 3:15pm F 9:00am - 9:50am	Seats (Total: 30) PHY 1412 PHY 0405	Discussion
0104	David Buehrle TuTh 2:00pm - 3:15pm F 10:00am - 10:50am	Seats (Total: 30) PHY 1412 PHY 0405	Discussion
0105	David Buehrle TuTh 2:00pm - 3:15pm M 9:00am - 9:50am	Seats (Total: 30) PHY 1412 PHY 1204	Discussion
0106	David Buehrle TuTh 2:00pm - 3:15pm M 3:00pm - 3:50pm	Seats (Total: 30) PHY 1412 PHY 0405	Discussion
0107	David Buehrle TuTh 2:00pm - 3:15pm M 4:00pm - 4:50pm	Seats (Total: 30) PHY 1412 MTH 0101	Discussion
0108	David Buehrle TuTh 2:00pm - 3:15pm W 4:00pm - 4:50pm	Seats (Total: 30) PHY 1412 PHY 1219	Discussion

0109	David Buehrle TuTh 2:00pm - 3:15pm M 4:00pm - 4:50pm	Seats (Total: 30) PHY 1412 PHY 1219	Discussion
0110	David Buehrle TuTh 2:00pm - 3:15pm M 3:00pm - 3:50pm	Seats (Total: 30) PHY 1412 PHY 1219	Discussion
0301	Hailu Gebremariam MWF 2:00pm - 2:50pm Tu 3:00pm - 3:50pm	Seats (Total: 33) PHY 1412 MTH 0106	Discussion
0302	Hailu Gebremariam MWF 2:00pm - 2:50pm Tu 4:00pm - 4:50pm	Seats (Total: 34) PHY 1412 PHY 1204	Discussion
0303	Hailu Gebremariam MWF 2:00pm - 2:50pm Th 4:00pm - 4:50pm	Seats (Total: 34) PHY 1412 PHY 1219	Discussion
0304	Hailu Gebremariam MWF 2:00pm - 2:50pm F 10:00am - 10:50am	Seats (Total: 34) PHY 1412 EGR 2154	Discussion
0305	Hailu Gebremariam MWF 2:00pm - 2:50pm F 11:00am - 11:50am	Seats (Total: 34) PHY 1412 CHM 0122	Discussion
0306	Hailu Gebremariam MWF 2:00pm - 2:50pm F 11:00am - 11:50am	Seats (Total: 35) PHY 1412 PHY 1204	Discussion
0307	Hailu Gebremariam MWF 2:00pm - 2:50pm Th 3:00pm - 3:50pm	Seats (Total: 34) PHY 1412 MTH 0304	Discussion
0308	Hailu Gebremariam MWF 2:00pm - 2:50pm Tu 4:00pm - 4:50pm	Seats (Total: 33) PHY 1412 MTH 0103	Discussion

0309	Hailu Gebremariam MWF 2:00pm - 2:50pm Th 4:00pm - 4:50pm	Seats (Total: 34) PHY 1412 PHY 1204	 Discussion
0401	Hailu Gebremariam M 7:00pm - 8:50pm W 7:00pm - 7:50pm W 8:00pm - 8:50pm	Seats (Total: 33) PHY 1410 PHY 1410 PHY 1219	 Discussion
0402	Hailu Gebremariam M 7:00pm - 8:50pm W 7:00pm - 7:50pm W 6:00pm - 6:50pm	Seats (Total: 33) PHY 1410 PHY 1410 PHY 1219	 Discussion
0403	Hailu Gebremariam M 7:00pm - 8:50pm W 7:00pm - 7:50pm M 6:00pm - 6:50pm	Seats (Total: 33) PHY 1410 PHY 1410 PHY 1219	 Discussion
0405	Hailu Gebremariam M 7:00pm - 8:50pm W 7:00pm - 7:50pm Tu 7:00pm - 7:50pm	Seats (Total: 33) PHY 1410 PHY 1410 PHY 1219	 Discussion

PHYS165 **Introduction to Programming in the Physical Sciences**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Prerequisite: PHYS171, PHYS141, or PHYS161; or must have scored 3 or higher on AP PHYS exam.

Introduction to programming using examples in the physical sciences. Provides instruction in the techniques of upper-level languages such as Fortran, C, and Pascal, as well as an introduction to the object oriented programming techniques used in Python, C++ and Java. Includes strong component of visualization and graphing.

0101	James Williams MWF 11:00am - 11:50am	Seats (Total: 60) CHE 2108

PHYS171 **Introductory Physics: Mechanics and Relativity**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit CORE: PS General Education: DSNS

Prerequisite: (MATH140; and a high school physics course); or permission of CMNS-Physics department. And must have completed or be concurrently enrolled in MATH141. Credit only granted for: PHYS141, PHYS161, or PHYS171.

First semester of a three semester sequence for physics majors and those desiring a rigorous preparation in the physical sciences: kinematics, Newton's laws, energy and work, linear and angular momenta, temperature and pressure, ideal gas law, and special relativity.

0101	Rajarshi Roy	Seats (Total: 50)
	TuTh 12:30pm - 1:45pm	PHY 1204
	M 10:00am - 10:50am	PHY 1204

PHYS205 **Developing Essential Research Skills**

(Perm req)

Credits: 3 Grading Method: Regular, Pass-Fail

Prerequisite: PHYS171 and PHYS174; or permission of instructor. Restriction: Permission of CMNS-Physics department.

Introduces students to the skills needed to become successful researchers. The course includes research experience, an introduction to programming, scientific reading and writing, presentation development and formal poster presentation.

0101	Donna Hammer	Seats (Total: 8)
	Th 11:00am - 12:15pm	PHY 1309
	Contact instructor or department for details.	

PHYS260 **General Physics: Vibration, Waves, Heat, Electricity and Magnetism**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit General Education: DSNL (if taken with PHYS261)

Prerequisite: PHYS161 and MATH141. Corequisite: PHYS261. Credit only granted for: PHYS142, PHYS260, or PHYS272.

Second semester of a three-semester calculus-based general physics course. Vibrations, waves, fluids; heat, kinetic theory, and thermodynamics; electrostatics, circuits, and magnetism. PHYS260 and PHYS261 must be taken in the same semester.

If purchasing used books additional software may be required.

0101	Matt Severson	Seats (Total: 32)	
	MWF 10:00am - 10:50am	PHY 1410	
	W 2:00pm - 2:50pm	PHY 1219	Discussion

0102	Matt Severson MWF 10:00am - 10:50am F 12:00pm - 12:50pm	Seats (Total: 32) PHY 1410 MTH 0106	Discussion
0103	Matt Severson MWF 10:00am - 10:50am F 2:00pm - 2:50pm	Seats (Total: 32) PHY 1410 PHY 1219	Discussion
0104	Matt Severson MWF 10:00am - 10:50am W 12:00pm - 12:50pm	Seats (Total: 32) PHY 1410 PHY 0405	Discussion
0201	Andris Skuja MW 4:00pm - 5:15pm Tu 11:00am - 11:50am	Seats (Total: 35) PHY 1412 ITV 1111	Discussion
0203	Andris Skuja MW 4:00pm - 5:15pm W 9:00am - 9:50am	Seats (Total: 35) PHY 1412 PHY 0405	Discussion
0205	Andris Skuja MW 4:00pm - 5:15pm Tu 4:00pm - 4:50pm	Seats (Total: 35) PHY 1412 PHY 1219	Discussion
0301	Rabindra Mohapatra MWF 3:00pm - 3:50pm M 12:00pm - 12:50pm	Seats (Total: 35) PHY 1410 MTH 0303	Discussion
0302	Rabindra Mohapatra MWF 3:00pm - 3:50pm Th 11:00am - 11:50am	Seats (Total: 35) PHY 1410 ITV 1111	Discussion
0303	Rabindra Mohapatra MWF 3:00pm - 3:50pm F 1:00pm - 1:50pm	Seats (Total: 35) PHY 1410 PHY 1219	Discussion
0304	Rabindra Mohapatra MWF 3:00pm - 3:50pm F 11:00am - 11:50am	Seats (Total: 34) PHY 1410 ANS 0402	Discussion

PHYS261 **General Physics: Vibrations, Waves, Heat, Electricity and Magnetism (Laboratory)**

Credits: 1

Grading Method: Regular, Pass-Fail, Audit

Corequisite: PHYS260.

Lab includes experiments on mechanics, vibrations, waves, heat, electricity and magnetism. PHYS260 and PHYS261 (lab) must be taken in the same semester.

Students must pay a $50.00 lab materials fee.

0101	Matt Severson, Long Him Cheung M 6:00pm - 8:20pm	Seats (Total: 36) PHY 3219	Lab
0102	Matt Severson, Yao-Chieh Hu M 12:00pm - 2:20pm	Seats (Total: 36) PHY 3219	Lab
0103	Matt Severson W 6:00pm - 8:20pm	Seats (Total: 36) PHY 3219	Lab
0104	Matt Severson, Long Him Cheung Tu 2:00pm - 4:20pm	Seats (Total: 36) PHY 3219	Lab
0105	Yao-Chieh Hu, Matt Severson Tu 5:00pm - 7:20pm	Seats (Total: 36) PHY 3219	Lab
0106	Matt Severson Th 6:00pm - 8:20pm	Seats (Total: 36) PHY 3219	Lab
0107	Gaurav Agrawal, Matt Severson W 11:00am - 1:20pm	Seats (Total: 36) PHY 3219	Lab
0108	Matt Severson, Mary Pitman Th 12:00pm - 2:20pm	Seats (Total: 36) PHY 3219	Lab
0109	Gaurav Agrawal, Matt Severson Th 9:00am - 11:20am	Seats (Total: 36) PHY 3219	Lab
0110	Matt Severson, Gaurav Agrawal Th 3:00pm - 5:20pm	Seats (Total: 36) PHY 3219	Lab

PHYS270 **General Physics: Electrodynamics, Light, Relativity and Modern Physics**

Credits: 3

Grading Method: Regular, Pass-Fail, Audit

General Education: DSNL (if taken with PHYS271)

Prerequisite: PHYS261, MATH241, and PHYS260. Corequisite: PHYS271.

Third semester of a three-semester calculus-based general physics course. Electrodynamics, Maxwell's equations and electromagnetic waves, geometrical optics, interference, diffraction, special theory of relativity, and modern physics. PHYS270 and PHYS271 (lab) must be taken in the same semester.

If purchasing used books additional software may be required.

0101	Hailu Gebremariam MWF 1:00pm - 1:50pm W 2:00pm - 2:50pm	Seats (Total: 33) PHY 1412 MTH 0101	Discussion
0102	Hailu Gebremariam MWF 1:00pm - 1:50pm M 3:00pm - 3:50pm	Seats (Total: 33) PHY 1412 CHM 0127	Discussion
0103	Hailu Gebremariam MWF 1:00pm - 1:50pm W 11:00am - 11:50am	Seats (Total: 33) PHY 1412 PHY 0405	Discussion
0104	Hailu Gebremariam MWF 1:00pm - 1:50pm Th 8:00am - 8:50am	Seats (Total: 33) PHY 1412 PHY 0405	Discussion
0106	Hailu Gebremariam MWF 1:00pm - 1:50pm M 11:00am - 11:50am	Seats (Total: 33) PHY 1412 PHY 1204	Discussion
0201	Hailu Gebremariam MWF 12:00pm - 12:50pm M 9:00am - 9:50am	Seats (Total: 35) PHY 1412 PHY 1402	Discussion
0202	Hailu Gebremariam MWF 12:00pm - 12:50pm W 9:00am - 9:50am	Seats (Total: 35) PHY 1412 PHY 1402	Discussion
0203	Hailu Gebremariam MWF 12:00pm - 12:50pm M 10:00am - 10:50am	Seats (Total: 35) PHY 1412 CHM 0119	Discussion
0204	Hailu Gebremariam MWF 12:00pm - 12:50pm M 11:00am - 11:50am	Seats (Total: 35) PHY 1412 MTH 0303	Discussion

0205	Hailu Gebremariam MWF 12:00pm - 12:50pm W 11:00am - 11:50am	Seats (Total: 35) PHY 1412 PHY 1204	Discussion
0206	Hailu Gebremariam MWF 12:00pm - 12:50pm W 10:00am - 10:50am	Seats (Total: 35) PHY 1412 PHY 0405	Discussion
0207	Hailu Gebremariam MWF 12:00pm - 12:50pm M 10:00am - 10:50am	Seats (Total: 35) PHY 1412 PHY 1219	Discussion
0208	Hailu Gebremariam MWF 12:00pm - 12:50pm Tu 8:00am - 8:50am	Seats (Total: 35) PHY 1412 PHY 1204	Discussion
0401	Howard Milchberg MW 5:00pm - 6:15pm M 6:30pm - 7:20pm	Seats (Total: 34) PHY 1410 PHY 1204	Discussion
0402	Howard Milchberg MW 5:00pm - 6:15pm W 6:30pm - 7:20pm	Seats (Total: 33) PHY 1410 PHY 1204	Discussion

PHYS271 **General Physics: Electrodynamics, Light, Relativity and Modern Physics (Laboratory)**

Credits: 1 Grading Method: Regular, Pass-Fail, Audit

Prerequisite: PHYS261. Corequisite: PHYS270.

Lab includes experiments on ac circuits, magnetism, light and modern physics. PHYS270 and PHYS271 (lab) must be taken in the same semester.

Students must pay a $50.00 lab materials fee.

0101	Matt Severson, Haoran Ni M 9:00am - 11:50am	Seats (Total: 36) PHY 3213	Lab
0102	Matt Severson, Haoran Ni W 9:00am - 11:50am	Seats (Total: 36) PHY 3213	Lab

0103	Hao Wu, Matt Severson M 3:00pm - 5:50pm	Seats (Total: 36) PHY 3213	Lab
0104	Matt Severson, Reza Hadadi Tu 8:00am - 10:50am	Seats (Total: 36) PHY 3213	Lab
0105	Matt Severson, Hadi Vafaei M 6:00pm - 8:50pm	Seats (Total: 36) PHY 3213	Lab
0106	Matt Severson, Prateek Bhargava Tu 11:00am - 1:50pm	Seats (Total: 36) PHY 3213	Lab
0107	Matt Severson, Reza Hadadi Tu 4:00pm - 6:50pm	Seats (Total: 36) PHY 3213	Lab
0108	Prateek Bhargava, Matt Severson W 5:00pm - 7:50pm	Seats (Total: 36) PHY 3213	Lab
0109	Matt Severson, Prateek Bhargava Th 1:00pm - 3:50pm	Seats (Total: 36) PHY 3213	Lab
0110	Matt Severson, Hao Wu W 2:00pm - 4:50pm	Seats (Total: 36) PHY 3213	Lab
0111	Matt Severson, Reza Hadadi Th 9:00am - 11:50am	Seats (Total: 36) PHY 3213	Lab
0112	Matt Severson, Hao Wu Th 4:00pm - 6:50pm	Seats (Total: 36) PHY 3213	Lab
0113	Hadi Vafaei, Matt Severson Th 7:00pm - 9:50pm	Seats (Total: 36) PHY 3213	Lab
0114	Haoran Ni, Matt Severson Tu 7:00pm - 9:50pm	Seats (Total: 36) PHY 3213	Lab

PHYS272 **Introductory Physics: Fields**

Credits: 3

Grading Method: Regular, Pass-Fail, Audit

General Education: DSNL (if taken with PHYS275)

Prerequisite: PHYS161 or PHYS171; and MATH141; and must have completed or be concurrently enrolled in MATH241. Credit only granted for: PHYS142, (PHYS260 and PHYS261) or PHYS272.. Additional information: CORE Distributive Studies Physical Sciences Laboratory Course only when taken concurrently with PHYS275.

Second semester of a calculus based general physics course. Universal gravitation, electric and magnetic fields and potentials, simple circuits, Maxwell's equations in integral form. Continues the application of mathematics to conceptual models, now with more abstract components.

Cross-listed with PHYS272H. Credit granted for PHYS272 or PHYS272H.

0101	Eun-Suk Seo	Seats (Total: 60)
	TuTh 12:30pm - 1:45pm W 10:00am - 10:50am	PHY 1201 CHM 0115

PHYS272H **Introductory Physics: Fields**

(Perm req)

Credits: 3 | Grading Method: Regular, Pass-Fail, Audit | General Education: DSNL (if taken with PHYS275)

Prerequisite: PHYS161 or PHYS171; and MATH141; and must have completed or be concurrently enrolled in MATH241. Credit only granted for: PHYS142, (PHYS260 and PHYS261) or PHYS272.. Additional information: CORE Distributive Studies Physical Sciences Laboratory Course only when taken concurrently with PHYS275.

Second semester of a calculus based general physics course. Universal gravitation, electric and magnetic fields and potentials, simple circuits, Maxwell's equations in integral form. Continues the application of mathematics to conceptual models, now with more abstract components.

For general honors students only. Cross-listed with PHYS272. Credit granted for PHYS272 or PHYS272H.

0101	Eun-Suk Seo	Seats (Total: 60)
	TuTh 12:30pm - 1:45pm W 10:00am - 10:50am	PHY 1201 CHM 0115

PHYS273 **Introductory Physics: Waves**

Credits: 3 | Grading Method: Regular, Pass-Fail, Audit

Prerequisite: MATH241 and PHYS272. Corequisite: PHYS274.

Oscillations and AC circuits using complex variables, Fourier series and integrals, waves on strings, sound; electromagnetic waves from Maxwell's equations in differential form; physical optics.

Cross-listed with PHYS273H. Credit granted for PHYS273 or PHYS273H.

0101	Peter Shawhan TuTh 9:30am - 10:45am F 10:00am - 10:50am	Seats (Total: 90) PHY 1410 ESJ 1202

PHYS273H **Introductory Physics: Waves**

(Perm req)

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Prerequisite: MATH241 and PHYS272. Corequisite: PHYS274.

Oscillations and AC circuits using complex variables, Fourier series and integrals, waves on strings, sound; electromagnetic waves from Maxwell's equations in differential form; physical optics.

For general honors students only. Cross-listed with PHYS273. Credit granted for PHYS273 or PHYS273H.

0101	Peter Shawhan TuTh 9:30am - 10:45am F 10:00am - 10:50am	Seats (Total: 90) PHY 1410 ESJ 1202

PHYS274 **Mathematical Methods for Physics I**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Prerequisite: MATH241 and PHYS272.

A first course in mathematical methods for physics. Topics include linear algebra, curvilinear coordinates and vector analysis.

0101	Bei Lok Hu MWF 2:00pm - 2:50pm	Seats (Total: 52) SYM 0200

PHYS275 **Experimental Physics I: Mechanics and Heat**

(Perm req)

Credits: 2 Grading Method: Regular, Pass-Fail, Audit

Prerequisite: PHYS161 or PHYS171; and PHYS174. Additional information: CORE Physical Science Lab (PL) Course only when taken concurrently with PHYS272.

Methods and rationale of experimental physics. Intended for physics majors and science and engineering students who desire a more rigorous approach. Experiments chosen from the areas of mechanics (from PHYS171), gas laws, and heats. Theory and applications of error analysis.

0101	Ki-Yong Kim W 2:00pm - 5:50pm	Seats (Total: 12) PHY 3104	Lab
0201	Ki-Yong Kim M 2:00pm - 5:50pm	Seats (Total: 12) PHY 3104	Lab
0301	Abolhassan Jawahery Tu 2:00pm - 5:50pm	Seats (Total: 12) PHY 3104	Lab
0401	Abolhassan Jawahery Th 2:00pm - 5:50pm	Seats (Total: 12) PHY 3104	Lab
0501	Anwar Bhatti MW 9:00am - 10:50am	Seats (Total: 12) PHY 3104	

PHYS276 **Experimental Physics II: Electricity and Magnetism**

(Perm req)

Credits: 2 Grading Method: Regular, Pass-Fail, Audit

Prerequisite: PHYS272 and PHYS275.

Second course in the three semester introductory sequence. Methods and rationale of experimental physics. Experiments chosen from the fields of electricity and magnetism including electrostatics, magnetostatics, magnetic induction, AC circuits.

0101	Min Ouyang M 1:00pm - 4:50pm	Seats (Total: 12) PHY 3120	Lab
0201	Min Ouyang Tu 1:00pm - 4:50pm	Seats (Total: 12) PHY 3120	Lab
0301	Frederick Wellstood Th 2:00pm - 5:50pm	Seats (Total: 12) PHY 3120	Lab
0401	Frederick Wellstood W 2:00pm - 5:50pm	Seats (Total: 12) PHY 3120	Lab

PHYS299 **Special Problems in Physics**

(Perm req)

Credits: 1-6 Grading Method: Regular, Pass-Fail, Audit

Research or special study to complement courses taken elsewhere which are not fully equivalent to those in departmental requirements. Credit according to work done.

Contact department for information to register for this course.

PHYS331 **Physics for Life Sciences I**

Credits: 4

Grading Method: Regular, Pass-Fail, Audit

Prerequisite: CHEM131; and (MATH131 or MATH136); and (BSCI160 and BSCI161; or BSCI106); and (BSCI170 and BSCI171; or BSCI105). Or students who have taken courses with comparable content may contact the department. Credit only granted for: PHYS121, PHYS131 or PHYS 331.

The first part of a two-semester course in general physics specifically oriented towards applications relevant for students in biology and pre-medical programs. The course covers basic mechanics including forces and energy, properties of matter, and thermodynamics done in authentic biological contexts.

SG91	David Buehrle	Seats (Total: 20)	
	MWF 11:00am - 11:50am	BLD4 4308	
	M 2:00pm - 3:50pm	BLD4 3322	Lab
	M 1:00pm - 1:50pm	BLD4 3322	Discussion
	Registration is restricted to Biological Sciences-Shady Grove majors. Permission is required for all other students to enroll in courses at Shady Grove. Please email usgbiosci@umd.edu for permission.		
SG92	David Buehrle	Seats (Total: 20)	
	MWF 11:00am - 11:50am	BLD4 4308	
	W 2:00pm - 3:50pm	BLD4 3322	Lab
	W 1:00pm - 1:50pm	BLD4 3322	Discussion
	Registration is restricted to Biological Sciences-Shady Grove majors. Permission is required for all other students to enroll in courses at Shady Grove. Please email usgbiosci@umd.edu for permission.		

PHYS371 **Modern Physics**

Credits: 3

Grading Method: Regular, Pass-Fail, Audit

Prerequisite: PHYS273 and PHYS274. Corequisite: PHYS373. Credit only granted for: PHYS371 or PHYS420. Additional information: This course is intended primarily for physics and astronomy majors.

Introduces students to special relativity, thermodynamics and quantum mechanics at an intermediate level.

0101	Manuel Franco Sevilla TuTh 9:30am - 10:45am	Seats (Total: 55) PHY 1204	

PHYS373 **Mathematical Methods for Physics II**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Prerequisite: PHYS273 and PHYS274.

A second course in mathematical methods for physics. Topics include introduction to ordinary differential equations, partial differential equations, and complex analysis.

0101	Adil Hassam TuTh 2:00pm - 3:15pm	Seats (Total: 55) PHY 1204	

PHYS375 **Experimental Physics III: Electromagnetic Waves, Optics and Modern Physics**

(Perm req)

Credits: 3 Grading Method: Regular, Pass-Fail, Audit General Education: DSSP

Prerequisite: PHYS276 and PHYS273.

Third course in the three-semester introductory sequence. Methods and rationale of experimental physics. Experiments chosen from the areas of electromagnetic waves, optics and modern physics.

0101	Sarah Eno M 2:00pm - 2:50pm M 3:00pm - 5:50pm	Seats (Total: 15) PHY 1201 PHY 3115	 Lab
0201	Sarah Eno, Arpita Upadhyaya M 2:00pm - 2:50pm Tu 3:00pm - 5:50pm	Seats (Total: 15) PHY 1201 PHY 3115	 Lab
0301	Sarah Eno, Arpita Upadhyaya M 2:00pm - 2:50pm W 3:00pm - 5:50pm	Seats (Total: 15) PHY 1201 PHY 3115	 Lab
0401	Ellen Williams, Sarah Eno M 2:00pm - 2:50pm Th 3:00pm - 5:50pm	Seats (Total: 15) PHY 1201 PHY 3115	 Lab

PHYS386 **Experiential Learning**

(Perm req)

Credits: 3-6

Grading Method: Regular, Pass-Fail

Contact department for information to register for this course.

PHYS389 **Undergraduate Thesis Research**

(Perm req)

Credits: 1-6

Grading Method: Regular, Pass-Fail, Audit

Independent directed research and study on a topic selected by the student in consultation with his or her advisor. Final written thesis and oral defense will be expected.

Contact department for information to register for this course.

PHYS398 **Independent Studies Seminar**

(Perm req)

Credits: 1-16

Grading Method: Regular, Pass-Fail, Audit

Credit according to work done. Enrollment is limited to students admitted to the independent studies program in physics.

Contact department for information to register for this course.

PHYS398T **Independent Studies Seminar; Seminar in Interdisciplinary STEM Education: Teaching Physics for Biologists**

(Perm req)

Credits: 1

Grading Method: Regular, Pass-Fail, Audit

Credit according to work done. Enrollment is limited to students admitted to the independent studies program in physics.

Contact department for information to register for this course.

PHYS399 **Special Problems in Physics**

(Perm req)

Credits: 1-3

Grading Method: Regular, Pass-Fail, Audit

Selected advanced experiments. (Will be given with sufficient demand.)

Contact department for information to register for this course.

PHYS399C **Special Problems in Physics; Physics STEM Seminar**

(Perm req)

Credits: 1-2

Grading Method: Regular, Pass-Fail, Audit

Selected advanced experiments. (Will be given with sufficient demand.)

0101	Donna Hammer, Thomas Gleason TBA	Seats (Total: 5) PHY 3150

PHYS399D **Special Problems in Physics; Physics STEM Seminar: Design Thinking**

(Perm req)

Credits: 1

Grading Method: Regular, Pass-Fail

Selected advanced experiments. (Will be given with sufficient demand.)

0101	Thomas Gleason, Donna Hammer **Meets February 11, 2020 - May 12, 2020** M 1:00pm - 1:50pm Contact instructor or department for details.	Seats (Total: 12) PHY 1309A

PHYS399E **Special Problems in Physics; Physics STEM Seminar III**

Credits: 2

Grading Method: Regular, Pass-Fail, Audit

Selected advanced experiments. (Will be given with sufficient demand.)

0101	Donna Hammer, Thomas Gleason Contact instructor or department for details.	Seats (Total: 5)

PHYS399J **Special Problems in Physics; Physics STEM SEminar V**

(Perm req)

Credits: 1-3

Grading Method: Regular, Pass-Fail, Audit

Selected advanced experiments. (Will be given with sufficient demand.)

Contact department for information to register for this course.

PHYS399W **Special Problems in Physics; S-STEM Seminar - Writing Journal Articles**

(Perm req)

Credits: 1

Grading Method: Regular, Pass-Fail

Selected advanced experiments. (Will be given with sufficient demand.)

0101	Donna Hammer, Thomas Gleason M 11:00am - 11:50am	Seats (Total: 10) PHY 1309

PHYS399Y **Special Problems in Physics; STEM Seminar II: Reviewing and Evaluation STEM Program**

(Perm req)

Credits: 1

Grading Method: Regular, Pass-Fail

Selected advanced experiments. (Will be given with sufficient demand.)

0101	Thomas Gleason, Donna Hammer	Seats (Total: 10)
	Contact instructor or department for details.	

PHYS401 **Quantum Physics I**

Credits: 4

Grading Method: Regular, Pass-Fail, Audit

Prerequisite: PHYS371 and PHYS373. Formerly: PHYS421.

Introduces some quantum phenomena leading to wave-particle duality. Schroedinger theory for bound states and scattering in one dimension. One-particle Schroedinger equation and the hydrogen atom.

0101	Steven Anlage	Seats (Total: 68)
	MWF 11:00am - 11:50am	PHY 1201
	M 10:00am - 10:50am	PHY 1201

PHYS402 **Quantum Physics II**

Credits: 4

Grading Method: Regular, Pass-Fail, Audit

Prerequisite: PHYS401.

Quantum states as vectors; spin and spectroscopy, multiparticle systems, the periodic table, perturbation theory, band structure, etc.

0101	Christopher Lobb	Seats (Total: 60)
	MWF 9:00am - 9:50am	PHY 1201
	W 10:00am - 10:50am	PHY 1201

PHYS404 **Introduction to Statistical Thermodynamics**

Credits: 3

Grading Method: Regular, Pass-Fail, Audit

Prerequisite: PHYS371 or PHYS420.

Introduction to basic concepts in thermodynamics and statistical mechanics.

0101	Paulo Bedaque	Seats (Total: 70)
	TuTh 12:30pm - 1:45pm	EGR 0108

PHYS405 **Advanced Experiments**

(Perm req)

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Prerequisite: PHYS375. Restriction: Must be in a major within CMNS-Physics department.

Advanced laboratory techniques. Selected experiments from many fields of modern physics. Emphasis on self-study of the phenomena, data analysis, and presentation in report form.

0101	Shabnam Jabeen, Vladimir Manucharyan	Seats (Total: 16)	
	W 12:00pm - 12:50pm	PHY 1204	Lab
	TBA	PHY 3112	Lab
0102	Vladimir Manucharyan, Shabnam Jabeen	Seats (Total: 16)	
	W 12:00pm - 12:50pm	PHY 1402	Lab
	TBA	PHY 3112	Lab

PHYS407 **Undergraduate Experimental Research**

(Perm req)

Credits: 3 Grading Method: Regular, Pass-Fail, Audit General Education: DSSP

Prerequisite: PHYS499 and PHYS375; and permission of CMNS-Physics department. Restriction: Must be in a major within CMNS-Physics department; and senior standing.

Students develop and complete an independent, experimental research project with a professor in the Physics Department. The project should be a continuation of work done in PHYS499A. To obtain permission, students must submit a proposal describing the experimental work to be completed and this proposal must be approved by their faculty mentor, the associate chair for undergraduate education and the chair of the laboratory committee. Students must maintain a lab notebook, give an oral presentation and complete a written report on their research that includes data and error analysis.

0101	Kara Hoffman	Seats (Total: 10)
	Contact instructor or department for details.	

PHYS410 **Classical Mechanics**

Credits: 4 Grading Method: Regular, Pass-Fail, Audit

Prerequisite: PHYS373.

Theoretical foundations of mechanics with extensive application of the methods. Various mathematical tools of theoretical physics.

0101	Carter Hall	Seats (Total: 44)
	TuTh 11:00am - 12:15pm	PHY 1204
	F 10:00am - 10:50am	PHY 1204

PHYS411 **Intermediate Electricity and Magnetism**

Credits: 4 Grading Method: Regular, Pass-Fail, Audit

Prerequisite: PHYS373.

Foundations of electromagnetic theory, with extensive applications of the methods. Thorough treatment of wave properties of solutions of Maxwell's equations.

0101	Anson Hook	Seats (Total: 63)
	TuTh 9:30am - 10:45am	PHY 1201
	F 10:00am - 10:50am	PHY 1201

PHYS420 **Principles of Modern Physics**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Prerequisite: MATH246. And PHYS271 and PHYS270; or PHYS273. Credit only granted for: PHYS371 or PHYS420.

A survey of atomic and nuclear phenomena and the main trends in modern physics. Appropriate for students in engineering and other physical sciences.

0101	Xiangdong Ji	Seats (Total: 40)
	TuTh 3:30pm - 4:45pm	PHY 0405

PHYS431 **Properties of Matter**

(Perm req)

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Prerequisite: PHYS271, PHYS270, and MATH241. Restriction: Junior standing or higher; and must be in Engineering: Materials Science program. Cross-listed with: ENMA460. Credit only granted for: ENMA460 or PHYS431.

Classes of materials; introduction to basic ideal and real materials' behavior including mechanical, electrical, thermal, magnetic and optical responses of materials; importance of microstructure in behavior. One application of each property will be discussed in detail.

0101	Johnpierre Paglione MW 5:00pm - 6:15pm	Seats (Total: 15) PHY 1402

PHYS441 **Topics in Nuclear and Particle Physics**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Prerequisite: PHYS401 or PHYS402. Corequisite: PHYS402.

A survey of concepts in particle and nuclear physics, with a topical emphasis on the impact of the Weak Interaction and the discovery of Parity Violation.

0101	Gregory Sullivan TuTh 2:00pm - 3:15pm	Seats (Total: 32) CHM 1228

PHYS457 **Introduction to Quantum Computing**

(Perm req)

Credits: 3 Grading Method: Regular, Pass-Fail

Prerequisite: 1 course with a minimum grade of C- from (MATH240, PHYS274); and 1 course with a minimum grade of C- from (CMSC351, PHYS373). Restriction: Permission of CMNS-Physics department; or permission of CMNS-Computer Science department. Cross-listed with CMSC4 57. Credit only granted for: PHYS457 or CMSC457. Additional infor mation: No previous background in quantum mechanics is required.

An introduction to the concept of a quantum computer, including algorithms that outperform classical computation and methods for performing quantum computation reliably in the presence of noise. As this is a multidisciplinary subject, the course will cover basic concepts in theoretical computer science and physics in addition to introducing core quantum computing topics.

0101	Xiaodi Wu MW 2:00pm - 3:15pm	Seats (Total: 20) IRB 1116

PHYS474 **Computational Physics**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Prerequisite: PHYS404; and PHYS373; and (PHYS165, CMSC106, or CMSC131). Or permission of instructor.

This course provides an overview of some of the most widely used methods of computational physics, including numerical integration (elementary algorithms and Monte Carlo techniques), numerical solutions of differential equations (classical equations of motion, time independent and time dependent Schrodinger equations), molecular dynamics simulations (classical many-body systems), and Monte Carlo simulations (classical models of magnetism). In addition to giving the students a basic working knowledge of these particular techniques, the goal is to make them proficient in scientific computing and programming in general, so that they will be prepared to tackle also other computational problem that they may encounter in the future.

0101	Ian Appelbaum	Seats (Total: 36)
	MW 3:00pm - 4:15pm	JMP 1109

PHYS476 **Applied Machine Learning**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Prerequisite: PHYS165, PHYS274, and PHYS276; or interested students with backgrounds in functional programming, linear algebra and statistics, should contact the instructors to request permission.

Introduces machine learning techniques that are becomingpertinent in the technology industry. Focus on hands-on work using popular high-level libraries. Students are expected to have a background in functional programming, linear algebra, calculus, and mathematical modeling.

0101	Matt Severson	Seats (Total: 50)
	W 4:00pm - 6:50pm	IRB 1116

PHYS499A **Special Problems in Physics**

(Perm req)

Credits: 1-6 Grading Method: Regular, Pass-Fail, Audit

Research or special study. Credit according to work done.

Contact department for information to register for this course.

PHYS499B **Special Problems in Physics**

(Perm req)

Credits: 1-16 Grading Method: Regular, Pass-Fail, Audit

Research or special study. Credit according to work done.

Contact department for information to register for this course.

PHYS499T **Special Problems in Physics; Accelerator Physics - Building the Maryland 5 MeV Cyclotron**

(Perm req)

Credits: 3

Grading Method: Regular, Pass-Fail

Research or special study. Credit according to work done.

Prerequisite: ENEE380. Corequisite: ENEE381 or PHYS411; or permission of instructor. Restriction: Permission of ECE department. Cyclotrons are versatile accelerators whose use, because of an unsurpassed economic footprint, continues to expand in basic research, industry, medicine, and education. They also capture most of fundamentalphysics and technology of the biggest particle accelerators, such as CERN's LHC. This course provides students with a hands-on introduction to fundamental beam physics as well as the technology of cyclotrons, their design, commissioning, and operation. Students of this course will be designing and building a cyclotron.

0101	Brian Beaudoin, Timothy Koeth	Seats (Total: 12)	
	TuTh 9:30am - 10:45am	EGR 1102	
	F 9:00am - 12:00pm	EGR 0312	Lab

PHYS499V **Special Problems in Physics; Colloquium for Undergraduate Physics Majors**

(Perm req)

Credits: 1

Grading Method: Regular, Pass-Fail, Audit

Research or special study. Credit according to work done.

0101	Instructor: TBA	Seats (Total: 60)	
	Th 4:00pm - 6:50pm	PHY 1201	

PHYS499X **Special Problems in Physics; Making Physics Experiments**

(Perm req)

Credits: 3

Grading Method: Regular, Pass-Fail

Research or special study. Credit according to work done.

Pre-requisite: PHYS276 or permission of instructor

0101	Daniel Lathrop	Seats (Total: 12)	
	MW 1:00pm - 1:50pm	PHY 1309	
	F 1:00pm - 2:50pm	Location: TBA	Lab

PHYS603 **Methods of Statistical Physics**

(Perm req)

Credits: 3

Grading Method: Regular, Audit, Sat-Fail

Credit only granted for: PHYS602 or PHYS603.

Foundations and applications of thermodynamics and statistical mechanics.

Advanced special students require department authorization. Also offered as CHPH718F.

0101	Brian Swingle	Seats (Total: 49)
	TuTh 9:30am - 10:45am	PHY 1402

PHYS606 **Electrodynamics**

Credits: 4 Grading Method: Regular, Audit, Sat-Fail

Prerequisite: PHYS604; or students who have taken courses with comparable content may contact the department.

Classical electromagnetic theory, electro- and magnetostatics, Maxwell equations, waves and radiation, special relativity.

0101	James Drake	Seats (Total: 49)
	TuTh 11:00am - 12:40pm	PHY 1402

PHYS623 **Introduction to Quantum Mechanics II**

(Perm req)

Credits: 3 Grading Method: Regular, Audit, Sat-Fail

Prerequisite: Must have an outstanding undergraduate background in physics.

First and second semesters. A study of the Schroedinger equation, matrix formulations of quantum mechanics, approximation methods, scattering theory etc., and applications to solid state, atomic, and nuclear physics. Continuation of PHYS 622.

Advanced special students require department authorization.

0101	Victor Yakovenko	Seats (Total: 49)
	MW 2:00pm - 3:15pm	CHE 2108

PHYS625 **Non-relativistic Quantum Mechanics**

Credits: 3 Grading Method: Regular, Audit, Sat-Fail

Prerequisite: PHYS623.

Non-relativistic second quantization, single particle Green's function, perturbation theory, linked cluster expansion, Feynman and Goldstone diagrams; applications to imperfect Fermi gases; superconductivity.

0101	Victor Galitski	Seats (Total: 30)
	MW 12:30pm - 1:45pm	PHY 1219

PHYS703 **Introduction to Nonequilibrium Statistical Physics**

Credits: 3 Grading Method: Regular, Audit, Sat-Fail

Prerequisite: PHYS603 or CHEM687; or permission of instructor. Credit only granted for: CHPH703, CHPH718B, CHEM703, CHEM718B, PHYS703, or PHYS798Z. Formerly: PHYS798Z.

Analysis and microscopic modeling of systems away from thermal equilibrium. Linear response theory, ergodicity, Brownian motion, Monte Carlo modeling, thermal ratchets, far-from-equilibrium fluctuation relations. Introduction to the theoretical tools of nonequilibrium phenomena and their application to problems in physics, chemistry and biology.

0101	Christopher Jarzynski	Seats (Total: 40)
	TuTh 11:00am - 12:15pm	CHM 2201

PHYS709 **Seminar in General Physics; Statistical Physics**

Credits: 1 Grading Method: Regular, Audit, Sat-Fail

Cross-listed with CHPH709B. Credit granted for CHPH709B or PHYS709.

0101	Christopher Jarzynski	Seats (Total: 30)
	Tu 1:15pm - 2:30pm	IPT 1116

PHYS728 **Seminar in Atomic and Molecular Physics**

Credits: 1 Grading Method: Regular, Audit, Sat-Fail

0101	Mohammad Hafezi	Seats (Total: 30)
	M 11:00am - 12:15pm	ATL 2400

PHYS731 **Solid State Physics: Survey**

Credits: 3 Grading Method: Regular, Audit, Sat-Fail

A variety of topics such as crystal structure, mechanical, thermal, electrical, and magnetic properties of solids, band structure, the Fermi surface, and superconductivity will be treated. Although the emphasis will be on the phenomena, the methods of quantum mechanics are freely employed in this description.

0101	Jay Sau	Seats (Total: 30)
	TuTh 11:00am - 12:15pm	CHM 0127

PHYS738 **Seminar in Experimental Solid State Physics; Quantum Mechanical Many-Body Problems**

Credits: 1 Grading Method: Regular, Audit, Sat-Fail

Advanced special students require department authorization.

0101	Johnpierre Paglione	Seats (Total: 30)
	Th 2:00pm - 3:30pm	PHY 1201

PHYS739 **Seminar in Theoretical Solid State Physics; Quantum Mechanical Many-Body Problems**

Credits: 1 Grading Method: Regular, Audit, Sat-Fail

Advanced special students require department authorization.

0101	Sankar Das Sarma	Seats (Total: 30)
	Tu 11:00am - 12:30pm	PHY 2205

PHYS748 **Seminar in Experimental Nuclear Physics; Seminar in Nuclear Physics**

Credits: 1 Grading Method: Regular, Audit, Sat-Fail

0101	Carter Hall	Seats (Total: 10)
	W 11:30am - 1:00pm	PHY 2202

PHYS749 **Seminar in Theoretical Nuclear Physics**

Credits: 1 Grading Method: Regular, Audit, Sat-Fail

0101	Paulo Bedaque	Seats (Total: 30)
	Th 2:30pm - 4:00pm	PSC 3150

PHYS752 **Elementary Particle Physics II: Theory**

Credits: 3 Grading Method: Regular, Audit, Sat-Fail

Prerequisite: PHYS751 and PHYS624.

Survey of elementary particles and their properties, quantum field theory, meson theory, weak interactions, possible extensions of elementary particle theory.

0101	Kaustubh Agashe	Seats (Total: 25)
	MW 11:00am - 12:15pm	CHM 1228

PHYS758E **Seminar in Elementary Particles and Quantum Field Theory; Experimental Results Including Cosmic Ray Physics**

Credits: 1 Grading Method: Regular, Audit, Sat-Fail

0101	Kara Hoffman	Seats (Total: 25)
	W 4:00pm - 5:30pm	PHY 0405

PHYS759 **Seminar in Elementary Particles and Quantum Field Theory**

Credits: 1 Grading Method: Regular, Audit, Sat-Fail

Advanced special students require department authorization.

0101	Kaustubh Agashe	Seats (Total: 27)
	M 4:00pm - 5:30pm	PSC 3150

PHYS762 **Plasma Physics II**

Credits: 3 Grading Method: Regular, Audit, Sat-Fail

Prerequisite: PHYS761.

Continuation of PHYS 761. Vlasov theory, including waves, stability, and weak turbulence, kinetic equation theories of correlations and radiative processes.

0101	William Dorland	Seats (Total: 30)
	WTh 2:00pm - 3:15pm	MTH B0421

PHYS769 **Seminar in Plasma Physics; Plasma Physics Research**

Credits: 1 Grading Method: Regular, Audit, Sat-Fail

Advanced special students require department authorization.

0101	Adil Hassam W 3:30pm - 5:00pm	Seats (Total: 20) ERF 1207

PHYS778 **Seminar in Space and Cosmic Ray Physics**

Credits: 1 Grading Method: Sat-Fail, Audit

Advanced special students require department authorization.

0101	Eun-Suk Seo M 4:30pm - 5:45pm	Seats (Total: 15) ATL 2400

PHYS781 **Network Science Research-in-Progress Seminar**

Credits: 1 Grading Method: Regular, Audit, Sat-Fail

Credit only granted for: PHYS781 or PHYS798U. Formerly: PHYS798U.

Practice communicating scientific results and concepts to a general scientific audience, based on the student's research-in-progress.

0101	Michelle Girvan, Daniel Serrano W 1:00pm - 1:50pm	Seats (Total: 30) ATL 1114

PHYS798 **Special Problems in Advanced Physics**

(Perm req)

Credits: 1-3 Grading Method: Regular, Audit, Sat-Fail

Projects or special study in advanced physics.

Contact department for information to register for this course.

PHYS798B **Special Problems in Advanced Physics; Physics Colloquium**

Credits: 1 Grading Method: Regular, Audit, Sat-Fail

Projects or special study in advanced physics.

0101	Thomas Cohen Tu 4:00pm - 5:30pm	Seats (Total: 100) PHY 1412

PHYS798D **Special Problems in Advanced Physics; Applied Dynamics Seminar**

Credits: 1

Grading Method: Regular, Audit, Sat-Fail

Projects or special study in advanced physics.

Jointly offered with ENEE698D. Credit granted ENEE698D or PHYS798D.

0101	Edward Ott, Daniel Lathrop	Seats (Total: 20)
	Th 12:30pm - 1:30pm	ERF 1207

PHYS798J **Special Problems in Advanced Physics; Science and Technology Police**

Credits: 3

Grading Method: Regular, Audit, Sat-Fail

Projects or special study in advanced physics.

Jointly offered with PLCY689L. Credit only granted for PLCY689L or PHYS7 98J.

0101	Sylvester Gates, Rosina Bierbaum	Seats (Total: 34)
	Tu 7:00pm - 9:30pm	VMH 1203

PHYS798L **Special Problems in Advanced Physics; Biophysics**

Credits: 1

Grading Method: Regular, Audit, Sat-Fail

Projects or special study in advanced physics.

Cross-listed with CHPH709L and BIPH698L. Credit granted for CHPH709L, BIPH698L or PHYS798L.

0101	Arpita Upadhyaya	Seats (Total: 20)
	M 4:00pm - 5:30pm	CHM 0112

PHYS799 **Master's Thesis Research**

(Perm req)

Credits: 1-6

Grading Method: Sat-Fail

Contact department for information to register for this course.

PHYS799B **Master's Thesis Research**

Credits: 1-6

Grading Method: Regular, Sat-Fail

0101	Thomas Cohen	Seats (Total: 10)
	Contact instructor or department for details.	

PHYS838C **Special Topics in Experimental Solid State Physics; Center for Nanophysics and Advanced Materials Seminar**

Credits: 2 Grading Method: Regular, Audit, Sat-Fail

Credit according to work done.

0101	Johnpierre Paglione, Richard Greene	Seats (Total: 30)
	M 4:00pm - 6:00pm	PHY 1201

PHYS839A **Special Topics in Theoretical Solid State Physics**

Credits: 1-4 Grading Method: Regular, Audit, Sat-Fail

Credit according to work done.

0101	Sankar Das Sarma	Seats (Total: 10)
	Contact instructor or department for details.	

PHYS851 **Advanced Quantum Field Theory**

Credits: 3 Grading Method: Regular, Audit, Sat-Fail

Prerequisite: PHYS624.

Renormalization, unitarity, gauge theory, S-matrix construction.

0101	Zackaria Chacko	Seats (Total: 25)
	TuTh 11:00am - 12:20pm	PHY 1219

PHYS898 **Pre-Candidacy Research**

(Perm req)

Credits: 1-8 Grading Method: Regular, Sat-Fail

Contact department for information to register for this course.

PHYS899 **Doctoral Dissertation Research**

(Perm req)

Credits: 6 Grading Method: Sat-Fail

Contact department for information to register for this course.

PLCY100 **Foundations of Public Policy**

Credits: 3 | Grading Method: Regular, Pass-Fail, Audit | General Education: DSHS

A survey course, focusing on public policy institutions and analytical issues as well as on overview of key public policy problems. Students will be introduced to public policy as a discipline, with a brief overview of the actors and institutions involved in the process, and familiarize themselves with the kinds of problems typically requiring public action. The course will examine these problems from a multijurisdictional and multisectoral perspective. Specific policy areas examined include education policy, health policy, economic and budgetary policy, criminal justice policy, environmental policy, and national and homeland security policy. The course should permit students to have broad foundational exposure to the field that will give them a solid base for more advanced courses.

0101	Eric Luedtke MF 2:00pm - 2:50pm W 9:00am - 9:50am	Seats (Total: 26) TWS 1100 JMZ 2120	 Discussion
0102	Eric Luedtke MF 2:00pm - 2:50pm W 10:00am - 10:50am	Seats (Total: 30) TWS 1100 EDU 1121	 Discussion
0103	Eric Luedtke MF 2:00pm - 2:50pm Th 9:00am - 9:50am	Seats (Total: 26) TWS 1100 EDU 1121	 Discussion
0201	Erica Smith TuTh 11:00am - 12:15pm	Seats (Total: 28) BPS 1228	

PLCY101 **Great Thinkers on Public Policy**

Credits: 3 | Grading Method: Regular, Pass-Fail, Audit | General Education: DSHS, SCIS

Great ideas in public policy, such as equality, efficiency, sovereignty, liberty, bureaucracy, democracy and security are explored through the lens of great thinkers. An introduction to the intellectual foundations of public policy, from ancient theories on collective public action through the more contemporary development of public policy as a discipline. This may start as early as the ancient Greek philosophers and their views on public action through contemporary classics of public policy. At the conclusion of the course, students will have read classic works in the field and will master the key themes that have dominated the intellectual debates about public policy over its history. Emphasis will be on the interdisciplinary foundations of public policy, through examining core disciplinary contributions from economics, political science, management, philosophy, and other relevant disciplines.

0101	Curtis Valentine MW 6:00pm - 6:50pm F 9:00am - 9:50am	Seats (Total: 25) ASY 1213 SYM 0209	Discussion
0102	Curtis Valentine MW 6:00pm - 6:50pm F 10:00am - 10:50am	Seats (Total: 25) ASY 1213 BPS 0283	Discussion
0201	Gregory Ramsay MW 11:00am - 11:50am F 11:00am - 11:50am *For students with an interest in Global dimensions of Public Policy.*	Seats (Total: 25) ASY 2309 WDS 1114	Discussion
0202	Gregory Ramsay MW 11:00am - 11:50am F 12:00pm - 12:50pm *For students with an interest in Global dimensions of Public Policy.*	Seats (Total: 25) ASY 2309 SQH 1121	Discussion
0203	Gregory Ramsay MW 11:00am - 11:50am F 1:00pm - 1:50pm	Seats (Total: 15) ASY 2309 SQH 1111	Discussion
0301	Mathew Feehan TuTh 7:00pm - 8:15pm	Seats (Total: 58) TWS 1100	

PLCY201 **Public Leaders and Active Citizens**

Credits: 3 | Grading Method: Regular, Pass-Fail, Audit | General Education: DSHS, DSSP, SCIS

Credit only granted for: PLCY201 or PUAF201. Formerly: PUAF201.

Aims to inspire, teach and engage students in the theory and practice of public leadership from the local to the national to the global level. Students will learn and apply diverse approaches to leadership in a multicultural society while developing an understanding of key frameworks and practices necessary to foster collective action across private, public, and nonprofit sectors. This course will allow students to become informed citizens able to reason critically and persuasively about public matters Students will also explore and assess their own personal values, beliefs, and purpose as they develop their leadership potential.

0101	Alana Hackshaw TuTh 12:30pm - 1:45pm	Seats (Total: 50) TYD 1102	

0102	Alana Hackshaw TuTh 3:30pm - 4:45pm	Seats (Total: 50) ARC 1103
0201	Tiffany Ford MW 6:30pm - 7:45pm	Seats (Total: 50) TYD 1132
0301	Nancy Lineman Tu 5:00pm - 7:30pm	Seats (Total: 30) KNI 1105

PLCY213 **Foundations of Nonprofit Leadership and Social Innovation**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Through discussions of contemporary trends, challenges and issues, this course provides an introduction to the nonprofit and NGO sectors, social innovation, and the leadership and management skills required to achieve social impact. The course will explore the history, theories, and roles of philanthropy, the nonprofit sector, and social innovation in societies and cultures. Students will be able to demonstrate an understanding of the process and principles of social entrepreneurship and social innovation. Additionally, the course will introduce students to topics in leadership, social innovation, resource development, community mobilization through networks, the role of policy-making in creating change, project management, and overall strategies for achieving social impact. The course will include mini hands-on learning experiences that allow them to apply key learning outcomes.

0101	Claire Dunning TuTh 9:30am - 10:45am	Seats (Total: 40) SQH 1101
0201	Alexander Counts M 2:00pm - 4:30pm	Seats (Total: 30) TYD 1108

PLCY215 **Innovation and Social Change: Creating Change for Good**

Credits: 3 Grading Method: Regular, Pass-Fail General Education: DSSP

Credit only granted for: PLCY215 or PUAF215. Formerly: PUAF215.

A team-based, highly interactive and dynamic course that provides an opportunity for students to generate solutions to a wide range of problems facing many communities today. Students in the iGIVE Program will deepen their understanding of entrepreneurship and innovation practices by creating and implementing projects or ventures that address an issue of their choosing while learning topics such as communications, project management, teamwork, leadership, fundraising, project sustainability and next steps in social change.

Restricted to member of the iGive Living Learning Program.

0101	Patricia Bory TuTh 2:00pm - 3:15pm	Seats (Total: 42) ESJ 1309

PLCY301 **Sustainability**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Cross-listed with AGNR301. Credit only granted for: AGNR301, PUAF301, or PLCY301. Formerly: PUAF301.

Designed for students whose academic majors would be enhanced by the complementary study of a widely shared but hard-to-operationalize aspiration: that present choices should preserve or improve future options rather than foreclose or degrade them. How should we understand sustainability? How might we achieve it? How would we know if we had achieved it? And how could sustainability activists of a rising generation lead by example?

0101	Nathan Hultman TuTh 3:30pm - 4:45pm	Seats (Total: 169) JMZ 0220

PLCY302 **Examining Pluralism in Public Policy**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit General Education: DVCC

Credit only granted for: PLCY302 or PUAF302. Formerly: PUAF302.

Understanding pluralism and how groups and individuals coexist in society is an essential part of the public policy process. This course will examine the ways in which the diverse experiences of race, gender, ethnicity, class, orientation, identity, and religion impact the understanding of and equitable delivery of public policy. The examination of how identity development shapes our understanding of society and influences the decision-making process is central to students' shaping policy that is truly for the people. This course will equip students with the skills needed to analyze pluralism and draw conclusions about the application of various theories to public policy issues.

0101	Nina Harris W 4:15pm - 6:45pm	Seats (Total: 45) TWS 1100
0201	Alana Hackshaw M 2:00pm - 4:30pm	Seats (Total: 45) SQH 1117
0301	Ricco Hall W 4:15pm - 6:45pm	Seats (Total: 30) TYD 1114

PLCY303 **Public Economics Raising and Spending the People's Money**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Prerequisite: ECON200. Restriction: Must be in a major in PLCY-School of Public Policy.

Applied course in public finance, including introductions to resource mobilization (including taxation), macroeconomic policy, key public expenditure policies, and government budgetary processes and politics. The course will build on the foundations from ECON 202 to address the specific application of public finance principles to solving public problems. The course will focus on the principles of welfare economics (including market failure), economic principles as applied to particular spending programs and tax choices, and issues and institutions involved in the allocation and management of resources both at a national and subnational level. The focus of the course is on these issues from both a domestic and global perspective.

0101	Juan Martinez Guzman M 2:00pm - 4:30pm	Seats (Total: 50) BPS 1236
0102	Juan Martinez Guzman Tu 2:00pm - 4:30pm	Seats (Total: 50) HBK 0115

PLCY306 **Public Policy Analysis in Action**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Restriction: Must have earned a minimum of 60 credits; and must be in a major in PLCY-School of Public Policy.

Utilizes our unique location in the Washington, D.C. region to create a laboratory within which to analyze local, regional, national and international policy problems. Students will be put into teams and assigned to real and timely policy cases. The course will include meetings and field trips with local leaders in the field, ideally connected to the cases. Student will then expand and apply their use of policy analysis and evaluation skills to define those problems, analyze alternative responses, devise appropriate strategies for implementation, and evaluate the success of the proposed policy and implementation. The course will conclude with team presentations to local leaders and faculty. This distinctive course will serve to prepare students for their client- based senior capstone course.

0101	Kathleen Vogel Th 5:00pm - 7:30pm	Seats (Total: 50) HJP 2242

PLCY309 **Internship in Political Institutions: State and Local**

(Perm req)

Credits: 3-6 Grading Method: Regular, Pass-Fail

Offers students supervised internship placements in state and local political or public policy organizations.

0101	Tiffany Ford	Seats (Total: 47)
	Contact instructor or department for details.	

PLCY310 **Nonprofit Leadership and Social Innovation in Action**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Prerequisite: PLCY 213.

Furthers students understanding of topics in leadership, social innovation, resource development, community mobilization through networks, and the role of policy making in creating change. This course will further students understanding of the creation and leadership of nonprofits, social ventures, governance and boards; strategic planning and partnerships; advocacy and public policy processes; community outreach; working in teams, effective communications, and cross-sector approaches to scaling up social impact.

0101	Ebonie Johnson Cooper	Seats (Total: 45)
	M 2:00pm - 4:30pm	TYD 2106

PLCY311 **Women in Leadership**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Credit only granted for: PUAF311, PLCY311 or PUAF359W. Formerly: PUAF359W.

Examines the role of women in the leadership process including the participation of women as activists, voters, advocates, public leaders and as agents of change through various avenues including, among others, public service (elected and appointed), the media, community service, political organizations, and the nonprofit sector.

0101	Anne Kaiser	Seats (Total: 38)
	Tu 5:00pm - 7:30pm	ASY 3211

PLCY313 **Advocacy in the American Political System**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Credit only granted for: PUAF313, PLCY313 or PUAF359C. Formerly: PUAF359C.

Introduces students to the creation of law through the legislative process with a special focus on the Maryland General Assembly.

0101	Gerard Evans	Seats (Total: 92)
	M 2:00pm - 4:30pm	TWS 0310

PLCY386 **Experiential Learning**

(Perm req)

Credits: 1-6 Grading Method: Regular, Pass-Fail

Prerequisite: Permission of PLCY-School of Public Policy. Credit only granted for: PLCY386 or PUAF386. Formerly: PUAF386.

0101	Nina Harris	Seats (Total: 15)
	Contact instructor or department for details.	

PLCY388 **Special Topics in Public Policy**

(Perm req)

Credits: 1 Grading Method: Regular, Pass-Fail, Audit

Advanced special topics focusing on an interdisciplinary topic related to Public Policy.

0101	Jennifer Littlefield	Seats (Total: 20)
	W 2:00pm - 2:50pm	SQH 1123

PLCY388A **Special Topics in Public Policy; Making a Difference: Child and Family Policy Advocacy**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Advanced special topics focusing on an interdisciplinary topic related to Public Policy.

Cross-listed with FMSC498A. Credit only granted for PLCY388A or FMSC498A. Advocates for children and families have accomplished a great deal over the years. They have reduced hunger, expanded access to health care, created safer communities and families, and worked to reduce inequities in education quality and resources. But so much more remains to be done to ensure social justice and equity for all children,youth and families. This course will concentrate on developing advocacy skills, including b uilding coalitions and agendas, activating grassroots, creating message strategies and writing Op Eds, among other ways advocates advance their causes.

0101	Adele Robinson	Seats (Total: 24)
	TuTh 11:00am - 12:15pm	SQH 1123

PLCY388C **Special Topics in Public Policy; Practical Hacking for Policy Makers**

Credits: 3

Grading Method: Regular, Pass-Fail, Audit

Advanced special topics focusing on an interdisciplinary topic related to Public Policy.

Jointly offered with INST467. Credit only granted for PLCY388C or INST467. Students will explore the key issues facing policy makers attempting to manage the problem of cybersecurity from its technical foundationsto domestic and international policy considerations surrounding governance, privacy, risk management, and operational orchestration. It is designed for students with no background in information technology, and will provide the principles to understand the current debates shaping a rapidly evolving security landscape.

0101	Charles Harry TuTh 2:00pm - 3:15pm	Seats (Total: 50) TYD 1102

PLCY388D **Special Topics in Public Policy; Innovation and Social Change: Do Good Now**

Credits: 3

Grading Method: Regular, Pass-Fail, Audit

General Education: DSSP, SCIS

Advanced special topics focusing on an interdisciplinary topic related to Public Policy.

Introduces students to the concept of social innovation while exploring the many mechanisms for achieving social impact. It is team-based, highly interactive and dynamic, and provides an opportunity for students to generate solutions to a wide range of problems facing many communities today. Deepens the students understanding of entrepreneurship and innovation practices by guiding them through the creation and implementation process as applied to a project idea of their choice.

0101	Toby Egan TuTh 2:00pm - 3:15pm	Seats (Total: 46) ESJ 2212
0201	Tricia Homer W 3:00pm - 5:30pm	Seats (Total: 17) SQH 1121

PLCY388F **Special Topics in Public Policy; Contemporary Issues Under the Rule of Law**

Credits: 3

Grading Method: Regular, Pass-Fail, Audit

Advanced special topics focusing on an interdisciplinary topic related to Public Policy.

"Fake news" and freedom of the press, money in electoral politics, voter photo ID laws and political gerrymandering, continued racial segregation in public schools, privacy on the street and in school, holding public officials accountable for egregious constitutional violations, and unequal justice for the poor are all thorny issues of public policy thathave found their way into American courts. This courseexamines these and other current issues presented to the courts ina format wherestudents evaluate and opine on the competing legal and policy arguments in class and in papers as if they were the empowered judicial authority.The course also provides a broad overview of the waysAmericancourts function as well as an opportunity to visit with a federal judge,hear the experiences of former jurors, and possibly visit a landlord-tenant courtin action.

0101	David Falk	Seats (Total: 25)
	TuTh 9:30am - 10:45am	WDS 0104

PLCY388O **Special Topics in Public Policy; China: China's Philanthropic and Social Sector - Policy and Management Perspectives**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Advanced special topics focusing on an interdisciplinary topic related to Public Policy.

Contact department for information to register for this course.

PLCY388R **Special Topics in Public Policy; Nuclear Security Policy**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Advanced special topics focusing on an interdisciplinary topic related to Public Policy.

Students are introduced to major themes and debates in the contemporary study of nuclear security, from historical, theoretical, practical, and international perspectives. This course will provide students with the technical and conceptual tools needed to understand the role nuclear weapons play in international politics. It will include a historical overview of the nuclear age, including a discussion on the evolution of nuclear strategy and the introduction of a new nuclear lexicon, the global nuclear arms race, and the development of the international nuclear nonproliferation regime. The course will cover a wide range of contemporary nuclear challenges, including nuclear security/terrorism, non-state actor nuclear challenges, international momentum behind nuclear disarmament (particularly, the evolution of the Treaty on the Prohibition of Nuclear Weapons), and the role of nuclear weapons in international politics, paying particular attention to future U.S.-Russia/U.S.-China relations, and India-Pakistan-China relations.

0101	Sara Kutchesfahani	Seats (Total: 35)
	M 2:00pm - 4:30pm	HBK 0105

PLCY388T **Special Topics in Public Policy; Undergraduate Teaching Assistant Directed Study**

Credits: 1-3

Grading Method: Regular, Pass-Fail, Audit

Advanced special topics focusing on an interdisciplinary topic related to Public Policy.

Contact department for information to register for this course.

PLCY388W **Special Topics in Public Policy; Global Action and Problem Solving**

Credits: 3

Grading Method: Regular, Pass-Fail, Audit

Advanced special topics focusing on an interdisciplinary topic related to Public Policy.

Today's most pressing problems do not stop at national borders. Meeting these challenges requires a range of state and non-state actors to work together. Students gain familiarity with key actors in the global system and how they approach today's most intractable problems. How do countries, international organizations, multinational corporations, and nongovernmental organizations find ways to cooperate when their interests and capabilities sometimes differ drastically? And,what are the key barriers to cooperation? We will examine a set of global policy issues requiring a transnational response including violent conflict, nuclear non-proliferation, human rights, migration, international trade, climate change, infectious disease, and humanitarian relief.

0101	Gregory Ramsay	Seats (Total: 23)
	Th 2:00pm - 4:30pm	SQH 1111

PLCY400 **Senior Capstone**

(Perm req)

Credits: 3

Grading Method: Regular, Pass-Fail

Prerequisite: PLCY306. Restriction: Permission of PLCY-School of Public Policy; and must have earned a minimum of 90 credits.

Public Policy students will take the skills and knowledge gained through their curriculum and apply them through their senior capstone course. Students will work in teams on problems and issues presented by outside clients, with guidance from faculty facilitators and interaction with the clients. Each team will work with the client to address a particular problem and produce a mutually agreed upon outcome. These hands on projects will advance students' understanding of the analytical, leadership, communication and problem solving skills necessary to address today's policy problems while allowing them to gain professional level experience that could contribute to their success in their post UMD endeavors. The course will conclude with an event that allows all teams to present their findings and outcomes to their client while being evaluated by faculty and public policy professionals.

0101	Kathleen Vogel	Seats (Total: 25)
	W 4:45pm - 7:15pm	ESJ 1309

0102	Kathleen Vogel W 2:00pm - 4:30pm	Seats (Total: 25) ESJ 1309	

PLCY401 **Contemporary Issues in Public Policy**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Restriction: Must have earned a minimum of 90 credits.

An integrative course that allows policy students to explore the complexities of the policy-making process from the perspective of specific policy topics. They will learn about and discuss subject- based issues in a seminar format led by faculty and policy experts. Site visits to federal agencies, guest speakers, and round table sessions ensure that students receive a variety of real-world perspectives on their chosen policy area.

0101	Catherine Worsnop W 2:00pm - 4:30pm *Examining the coordinated action needed to respond to global disease outbreaks.*	Seats (Total: 40) HBK 0115	
0201	Donald Marron M 5:00pm - 7:30pm *Considers a range of U.S. economic policy topics including jobs, taxes, and the environment.*	Seats (Total: 40) ASY 3211	

PLCY610 **Quantitative Aspects of Public Policy**

Credits: 3 Grading Method: Regular, Audit, Sat-Fail

Restriction: Must be in a major in PLCY-School of Public Policy; or permission of PLCY-School of Public Policy. Credit only granted for: PLCY610 or PUAF610. Formerly: PUAF610.

Introduces statistical methods needed for evaluating and choosing among policy options. Topics include probability; decision-making under uncertainty; the organization, interpretation, and visual display of complex data; prediction and inferences about causality; hypothesis testing; and linear and multiple regression. Develops analytical skills and the ability to apply theory to complex, real-world problems.

0101	Anthony Sanford W 4:15pm - 6:45pm Tu 7:00pm - 9:30pm	Seats (Total: 30) VMH 1207 PKT 1224	 Discussion

PLCY611 **Quantitative Analysis of Policy Issues**

Credits: 3

Grading Method: Regular, Audit, Sat-Fail

Restriction: Must be in a major in PLCY-School of Public Policy; or permission of PLCY-School of Public Policy. Credit only granted for: PLCY611 or PUAF611. Formerly: PUAF611.

Study of a series of problems and the development of quantitative techniques to describe or evaluate the problem. The organization and interpretation of complex data and its use for prediction and inference about casual effects. The definition of objectives, trade-offs among objectives, and allocation of resources to meet objectives. Sensitivity of outcomes to changing conditions.

0101	Seth Weissman	Seats (Total: 20)	
	W 7:00pm - 9:30pm	VMH 1203	
	Tu 7:00pm - 9:30pm	PKT 1221	Discussion

PLCY640 Microeconomic and Policy Analysis

Credits: 3

Grading Method: Regular, Audit, Sat-Fail

Restriction: Must be in a major in PLCY-School of Public Policy; or permission of PLCY-School of Public Policy. Credit only granted for: PLCY640 or PUAF640. Formerly: PUAF640.

Applies intermediate microeconomic theory to public policy issues: resource allocation by firms and consumers; the response of economic agents to changes in incentives; market allocations in competitive and non-competitive environments; and market failures and government remedies. Uses extended case studies of particular issues in such areas as the environment (acid rain), international trade (tariffs), industry regulation (cable TV), and the provision of public goods (highways).

0101	Michael Busse	Seats (Total: 29)	
	Tu 4:15pm - 6:45pm	VMH 1207	
	F 9:15am - 11:45am	VMH 1207	Discussion

PLCY650 Moral Dimensions of Public Policy

Credits: 3

Grading Method: Regular, Audit, Sat-Fail

Restriction: Must be in a major in PLCY-School of Public Policy; or permission of PLCY-School of Public Policy. Credit only granted for: PLCY650 or PUAF650. Formerly: PUAF650.

Explores the moral issues involved in public policy questions; the limits and usefulness of decision-making tools; problems of choosing, justifying and using criteria to judge a program's success and suitability; ethichal issues involving the welfare state and income distribution; and possible obligations beyond one's political community and generation.

Contact department for information to register for this course.

PLCY670 **Public Budgeting & Financial Management**

Credits: 3 Grading Method: Regular, Audit, Sat-Fail

Restriction: Must be in a major in PLCY-School of Public Policy; or permission of PLCY-School of Public Policy. Credit only granted for: PLYC670 or PUAF670. Formerly: PUAF670.

Covers how governments raise, spend, borrow, and manage public funds. Reviews federal,state, and local budget processes and introduces analytical techniques including basic spreadsheet skills, evaluating alternative revenue sources, revenue and expenditure forecasting, cost allocation, capital budgeting, cost-benefit analysis, discounting and present value, bond analysis, cash management and intergovernmental finance.

Contact department for information to register for this course.

PLCY688C **Topics in Public Policy; Cyberspace: Legal and Policy Implications**

Credits: 3 Grading Method: Regular, Audit, Sat-Fail

Special topics in Public Policy.

Restricted to PLCY majors or permission of instructor.

0101	David Mussington Tu 4:15pm - 6:45pm	Seats (Total: 20) VMH 1101

PLCY688E **Topics in Public Policy; Governance: Normative & Political Dimensions**

Credits: 3 Grading Method: Regular, Audit, Sat-Fail

Special topics in Public Policy.

Restricted to PLCY majors or permission of instructor.

Contact department for information to register for this course.

PLCY688F **Topics in Public Policy; State, Local & Non-Profit Financial Management**

Credits: 3 Grading Method: Regular, Audit, Sat-Fail

Special topics in Public Policy.

Restricted to PLCY majors or permission of instructor.

0101	Thomas Spreen Tu 4:15pm - 6:45pm	Seats (Total: 30) VMH 1203

PLCY688G **Topics in Public Policy; Governance: Leadership, Management and Accountability**

Credits: 3 Grading Method: Regular, Audit, Sat-Fail

Special topics in Public Policy.

Restricted to PLCY majors or permission of instructor.

0101	Elizabeth Duke Tu 9:15am - 11:45am	Seats (Total: 25) VMH 1203	
0201	Elizabeth Duke M 4:15pm - 6:45pm	Seats (Total: 25) VMH 1203	

PLCY688I **Topics in Public Policy; Macroeconomics for Public Policy**

Credits: 2 Grading Method: Regular, Audit, Sat-Fail

Special topics in Public Policy.

Restricted to PLCY majors or permission of instructor.

0101	John Green **Meets January 29, 2020 - April 11, 2020** Tu 1:30pm - 4:00pm M 9:15am - 11:45am *Meets first 11 weeks only.*	Seats (Total: 33) VMH 1101 PKT 1221	Discussion

PLCY688N **Topics in Public Policy; Development Diplomacy and Leadership**

Credits: 3 Grading Method: Regular, Audit, Sat-Fail

Special topics in Public Policy.

Contact department for information to register for this course.

PLCY688R **Topics in Public Policy; Public Finance and Budgeting**

Credits: 2 Grading Method: Regular, Audit, Sat-Fail

Special topics in Public Policy.

Restricted to PLCY majors or permission of instructor.

0101	Thomas Spreen **Meets March 2, 2020 - May 11, 2020** M 1:30pm - 4:00pm *Meets last 10 weeks only.*	Seats (Total: 30) PKT 1221

PLCY688T **Topics in Public Policy; Team-Based Policy Lab**

Credits: 3 Grading Method: Regular, Audit, Sat-Fail

Special topics in Public Policy.

Restricted to PLCY majors or permission of instructor.

0201	Sara Kutchesfahani M 9:15am - 11:45am *Congressional projects in multiple topic areas.*	Seats (Total: 15) VMH 1207
0401	Christopher Foreman Th 4:15pm - 6:45pm *Projects in social policy.*	Seats (Total: 15) VMH 1207
0501	Anand Patwardhan Th 4:15pm - 6:45pm *Projects in environmental and energy policy.*	Seats (Total: 15) VMH 1107
0601	David Mussington W 9:15am - 11:45am	Seats (Total: 15) VMH 1203

PLCY688X **Topics in Public Policy; Human Dignity**

Credits: 3 Grading Method: Regular, Audit, Sat-Fail

Special topics in Public Policy.

Restricted to PLCY majors or permission of instructor.

0101	Chloe Schwenke Tu 7:00pm - 9:30pm	Seats (Total: 20) VMH 1207

PLCY689E **Public Policy Topics; Program Evaluation and Cost-Benefit Analysis**

Credits: 3

Grading Method: Regular, Audit, Sat-Fail

Special Topics in Public Policy.

Restricted to PLCY majors or permission of instructor.

0101	Peter Germanis, Douglas Call, Douglas Besharov M 7:00pm - 10:00pm	Seats (Total: 45) VMH 1203
0201	Douglas Call, Douglas Besharov, Peter Germanis M 7:00pm - 10:00pm	Seats (Total: 45) VMH 1107
0301	Douglas Besharov, Peter Germanis, Douglas Call M 7:00pm - 10:00pm	Seats (Total: 25) VMH 1107

PLCY689L **Public Policy Topics; Science and Technology Policy**

Credits: 3

Grading Method: Regular, Audit, Sat-Fail

Special Topics in Public Policy.

Jointly offered with PHYS798J. Credit only granted for PLCY689L or PHYS7 98J.

0101	Sylvester Gates, Rosina Bierbaum Tu 7:00pm - 9:30pm	Seats (Total: 34) VMH 1203

PLCY689O **Public Policy Topics; Counterintelligence and National Security**

Credits: 1-3

Grading Method: Regular, Audit, Sat-Fail

Special Topics in Public Policy.

Contact department for information to register for this course.

PLCY689P **Public Policy Topics; Strategic Philanthropy**

Credits: 3

Grading Method: Regular, Audit, Sat-Fail

Special Topics in Public Policy.

Restricted to PLCY majors or permission of instructor.

0101	Claire Dunning M 1:30pm - 4:00pm	Seats (Total: 20) VMH 1101

PLCY689X **Public Policy Topics; Performance Management and Leadership**

Credits: 3 Grading Method: Regular, Audit, Sat-Fail

Special Topics in Public Policy.

For PLCY majors or permission of instructor.

0101	J Mihm, Philip Joyce M 7:00pm - 9:30pm	Seats (Total: 32) VMH 1101

PLCY689Y **Public Policy Topics; Nonprofit Fundraising**

Credits: 3 Grading Method: Regular, Audit, Sat-Fail

Special Topics in Public Policy.

Restricted to PLCY majors or permission of instructor. Class meets in Room 7878 Diamondback Drive, Suite B.

0101	Robert Grimm W 7:00pm - 9:30pm	Seats (Total: 30) Location: TBA

PLCY689Z **Public Policy Topics; Strategic Management for NonProfit and Public Organizations**

Credits: 3 Grading Method: Regular, Audit, Sat-Fail

Special Topics in Public Policy.

Contact department for information to register for this course.

PLCY692 **Leadership Principles and Practices**

Credits: 3 Grading Method: Regular, Audit, Sat-Fail

Restriction: Must be in a major in PLCY-School of Public Policy; or permission of PLCY-School of Public Policy. Credit only granted for: PLCY692 or PUAF692. Formerly: PUAF692.

This course will introduce leadership principles and practices to students by focussing on the theory of leadership, different leadership themes and skills, and discussions with practitioners.

CA01	Margaret Brindle Th 4:00pm - 7:00pm *Class meets in Chantilly, VA.*	Seats (Total: 20) Location: TBA

PLCY698E **Selected Topics in Public Affairs; Proseminar in Normative Public Policy**

Credits: 3 Grading Method: Regular, Audit, Sat-Fail

Special topics that arise in public policy.

0101	Robert Sprinkle Th 4:15pm - 6:45pm	Seats (Total: 20) VMH 1101

PLCY698R **Selected Topics in Public Affairs; Developmental Challenges**

Credits: 3 Grading Method: Regular, Audit, Sat-Fail

Special topics that arise in public policy.

Restricted to PLCY Majors or permission of instructor.

0101	Susan Parker W 4:15pm - 6:45pm	Seats (Total: 25) VMH 1203

PLCY698T **Selected Topics in Public Affairs; Managing Across Sectors**

Credits: 1-3 Grading Method: Regular, Audit, Sat-Fail

Special topics that arise in public policy.

Contact department for information to register for this course.

PLCY699F **Selected Topics Public Policy; Ethics of Public Administration**

Credits: 3 Grading Method: Regular, Audit, Sat-Fail

Special topics that arise in public policy.

For PLCY Majors or permission of instructor.

Contact department for information to register for this course.

PLCY699K **Selected Topics Public Policy; Civil Conflict**

Credits: 3

Grading Method: Regular, Audit, Sat-Fail

Special topics that arise in public policy.

For PLCY Majors or permission of instructor.

0101	Alec Worsnop	Seats (Total: 25)
	Th 9:15am - 11:45am	VMH 1203

PLCY699M **Selected Topics Public Policy; Acquisitions in National Security**

Credits: 3

Grading Method: Regular, Audit, Sat-Fail

Special topics that arise in public policy.

Contact department for information to register for this course.

PLCY699O **Selected Topics Public Policy; 21st Century Policy Challenges**

Credits: 3

Grading Method: Regular, Audit, Sat-Fail

Special topics that arise in public policy.

For PLCY Majors or permission of instructor.

Contact department for information to register for this course.

PLCY699R **Selected Topics Public Policy; Critical Thinking and Analytical Methodology**

Credits: 3

Grading Method: Regular, Audit, Sat-Fail

Special topics that arise in public policy.

Contact department for information to register for this course.

PLCY699Z **Selected Topics Public Policy; Energy Policy**

Credits: 3

Grading Method: Regular, Audit, Sat-Fail

Special topics that arise in public policy.

For PLCY Majors or permission of instructor.

0101	Irving Mintzer	Seats (Total: 20)
	M 4:15pm - 6:45pm	VMH 1101

PLCY711 **Public Management and Leadership**

Credits: 3

Grading Method: Regular, Audit, Sat-Fail

Restriction: Must be in a major in PLCY-School of Public Policy; or permission of PLCY-School of Public Policy. Credit only granted for: PLCY711 or PUAF711. Formerly: PUAF711.

Reviews the managerial, political, and ethical problems faced by public sector managers and leaders, including setting an organization's goals, obtaining and protecting a program mandate, designing a service delivery system and implementing a new program.

Contact department for information to register for this course.

PLCY717 **Federal Budgeting: Policy and Process**

Credits: 3

Grading Method: Regular, Audit, Sat-Fail

Restriction: Must be in a major in PLCY-School of Public Policy; or permission of PLCY-School of Public Policy. Credit only granted for: PLCY717 or PUAF717. Formerly: PUAF717.

Budgeting as a political and administrative instrument of government. Development of budgeting, the multiple uses of the budget, including role in fiscal policy and resource allocation, the roles and relationships of major participants, and effects of resource scarcity on budgeting behavior. Emphasis on the federal level.

0101	Samuel McCann	Seats (Total: 20)
	W 4:15pm - 6:45pm	VMH 1101

PLCY720 **International Security Policy**

Credits: 3

Grading Method: Regular, Audit, Sat-Fail

Restriction: Must be in a major in PLCY-School of Public Policy; or permission of PLCY-School of Public Policy. Credit only granted for: PLCY720 or PUAF720. Formerly: PUAF720.

Reviews the principal features of international security as currently practiced. Traces the evolution of contemporary policy beginning with the initiation of nuclear weapons programs during World War II. Particular emphasis is given to experience of the United States and Russia, since the historical interaction between these two countries has disproportionately affected the international security conditions that all other countries now experience.

0101	Nancy Gallagher	Seats (Total: 20)
	Tu 1:30pm - 4:00pm	VMH 1107

PLCY724 **Problems of Global Security**

Credits: 3 Grading Method: Regular, Audit, Sat-Fail

Restriction: Must be in a major in PLCY-School of Public Policy; or permission of PLCY-School of Public Policy. Credit only granted for: PLCY724 or PUAF724. Formerly: PUAF698W and PUAF724.

Explores the international security implications of globalization, presenting evidence indicating that altered circumstances will eventually induce a major redesign of prevailing security arrangements. Includes three segments: 1) a review of the principal problems that have been the focus of established security policy and would be the context for any major adjustment of policy; 2) an assessment of relationships with the major countries where traditional problems are most acutely present; and 3) a review of the organizing principles that can be expected to emerge in the new situation.

Contact department for information to register for this course.

PLCY732 **Policy and Politics of Education Reform**

Credits: 3 Grading Method: Regular, Audit, Sat-Fail

Restriction: Must be in a major in PLCY-School of Public Policy; or permission of PLCY-School of Public Policy. Credit only granted for: PLCY732 or PUAF732. Formerly: PUAF732.

Examines education reform in its historical, fiscal, cultural, and lega contexts, and the changing relationship between education and economic opportunity. Focuses on institutional and normative issues, including national standards, public school choice, charter schools, vouchers and funding equity.

0101	Betty Malen	Seats (Total: 24)
	Th 4:15pm - 7:00pm	EDU 2119

PLCY734 **Foundations of Social Policy**

Credits: 3 Grading Method: Regular, Audit, Sat-Fail

Restriction: Must be in a major in PLCY-School of Public Policy. Credit only granted for: PLCY734 or PUAF734. Formerly: PUAF734.

Provides an overview of government's role in social policy and the history of the development of federal and state policies with respect to welfare, aging, education, and housing. Analyzes current federal institutions and legislation in the same policy areas and the demographic history of the United States. Develops skills in analytic writing and presentation of descriptive data.

0101	Peter Reuter	Seats (Total: 20)
	M 4:15pm - 6:45pm	VMH 1207

PLCY737 **Strategies of Equality**

Credits: 3

Grading Method: Regular,
Audit, Sat-Fail

Credit only granted for: PLCY737 or PUAF737. Formerly: PUAF698Y and PUAF737.

Concentrates on the institutional and political means by which disadvantaged segments of the United States population have sought to enhance their social, economic and political prospects. Race, gender and disability are the substantive focal points, with considerable attention given to the challanges of African American socio-political uplift. Also explores legislation, litigation, administration, agitation (i.e. protest), and constitutional reform. Students become familiar with alternative conceptions of equality and the modes of argument employed in different institutional and political contexts.

0101	Christopher Foreman	Seats (Total: 20)
	Tu 1:30pm - 4:00pm	VMH 1203

PLCY740 **Public Policy and the Environment**

Credits: 3

Grading Method: Regular,
Audit, Sat-Fail

Restriction: Must be in a major in PLCY-School of Public Policy; or permission of PLCY-School of Public Policy. Credit only granted for: PLCY740 or PUAF740. Formerly: PUAF740.

Surveys of major federal environmental legislation; the development and implementation of laws, and alternative ways of thinking about the relationship between humans and the environment.

0201	Daria Scala	Seats (Total: 18)
	Tu 9:15am - 11:45am	VMH 1101

PLCY742 **Environmental Ethics**

Credits: 3

Grading Method: Regular,
Audit, Sat-Fail

Restriction: Must be in a major in PLCY-School of Public Policy; or permission of PLCY-School of Public Policy. Credit only granted for: PLYC742 or PUAF742. Formerly: PUAF742.

Analyzes issues such as the relation between human beings and nature from the perspectives of the science, history, philosophy, and religion. Considers the bases for policies such as environmental regulation, public lands, and international conventions with respect to the environment.

0101	Thomas Hilde	Seats (Total: 20)
	Meets March 27, 2020 - May 9, 2020	
	FSa 1:30pm - 4:00pm	VMH 1101

PLCY745 **Human Health and Environmental Policy**

Credits: 3 Grading Method: Regular, Audit, Sat-Fail

Credit only granted for: PLCY745 or PUAF745. Formerly: PUAF745.

Reviews the major human physiological systems and their integrated toxicological functions; considers key bodily defenses; and discusses classic, emerging, and ambiguous risks; in all ecological context. Applies to scientific controversy, the methods of policy formation, such as risk analysis, social-cost analysis, "outcomes" analysis, and decision analysis, all in political-economic context.

0101	Robert Sprinkle	Seats (Total: 24)
	W 4:15pm - 6:45pm	VMH 1107

PLCY752 **Managing Differences:Resolving Conflict and Negotiating Agreements**

Credits: 3 Grading Method: Regular, Audit, Sat-Fail

Restriction: Must be in a major in PLCY-School of Public Policy; or permission of PLCY-School of Public Policy. Credit only granted for: PLCY752 or PUAF752. Formerly: PUAF752.

Enhances the student's negotiation and leadership skills for managing differences between individuals and groups. Students study the nature of conflict, learn how to handle two and multiparty conflicts, exerting leadership where there are no hierarchy leaders, and explore the impact of facilitators and mediators on the negotiating process. Blends skill building exercises and theory discussions about the behavior of groups and individuals in groups to understand negotiation dynamics.

Contact department for information to register for this course.

PLCY780 **The American Foreign Policy-Making Process**

Credits: 3 Grading Method: Regular, Audit, Sat-Fail

Restriction: Must be in a major in PLCY-School of Public Policy; or permission of PLCY-School of Public Policy. Credit only granted for: PLCY780 or PUAF780. Formerly: PUAF780.

Survey and analysis of the governmental institutions and processes which shape U.S. global engagement on national security and international economic issues. Particular emphasis is given to executive-congressional relations and the broader domestic roots of foreign policy.

0201	Jonas Siegel	Seats (Total: 20)
	M 1:30pm - 4:00pm	VMH 1203

PLCY781 **International Economic Policy**

Credits: 3

Grading Method: Regular, Audit, Sat-Fail

Restriction: Must be in a major in PLCY-School of Public Policy; or permission of PLCY-School of Public Policy. Credit only granted for: PLCY781 or PUAF781. Formerly: PUAF781.

Issues and choices facing the United States in today's global economy. Primary, but not exclusive, emphasis is given to "competitive interdependence" among advanced industrial societies.

0101	Rafael Lopez-Monti	Seats (Total: 20)	
	M 4:15pm - 6:45pm W 7:00pm - 9:30pm	VMH 1107 PKT 1224	Discussion

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PLCY782 **International Development Economics**

Credits: 3

Grading Method: Regular, Audit, Sat-Fail

Restriction: Must be in a major in PLCY-School of Public Policy; or permission of PLCY-School of Public Policy. Credit only granted for: PUAF698U, PUAF782 or PLCY782. Formerly: PUAF698U and PUAF782.

Examines key current economic and policy issues for developing and transition economies. Topics include inflation stabilization, fiscal policy, selected trade issues, dealing with international capital flows, the role of multilateral organizations, such as the International Monetary Fund and the World Bank, and issues relating to saving, investment and growth.

0101	Susan Parker	Seats (Total: 42)	
	M 7:00pm - 9:30pm	VMH 1207	

PLCY790 **Project Course**

Credits: 3

Grading Method: Regular, Audit, Sat-Fail

Restriction: Must be in a major in PLCY-School of Public Policy; or permission of PLCY-School of Public Policy. Credit only granted for: PLCY790 or PUAF790. Formerly: PUAF790.

Students work at a sponsoring government agency or private firm researching problem of interest to sponsor and relevant to concentration. Emphasis on problem definition, organizing information, and both oral and written presentation of results.

For students taking evaluation-based IDEV project course.

0201	Douglas Call, Douglas Besharov Th 4:15pm - 6:45pm Contact instructor or department for details. *For students with a federal social-policy evaluation-based social policy project.*	Seats (Total: 18) VMH 1203
0211	Douglas Call, Douglas Besharov Th 4:15pm - 6:45pm Contact instructor or department for details. *For students with a state/local social policy evaluation-based project.*	Seats (Total: 18) VMH 1203
0311	Anand Patwardhan Th 1:30pm - 4:00pm *For students with sustainability-based projects.*	Seats (Total: 10) PKT 1224
0401	Kathleen Vogel, Jonas Siegel Th 1:30pm - 4:00pm *For students with international security policy projects.*	Seats (Total: 16) VMH 1107
0501	Matthew Regan, Margaret Brindle Th 1:30pm - 4:00pm *For students with non-evaluation-based international development projects.*	Seats (Total: 22) PKT 1221

PLCY798A **Readings in Public Policy**

Credits: 1-3 Grading Method: Regular, Audit, Sat-Fail

Guided readings for discussions on public policy.

Contact department for information to register for this course.

PLCY798B **Readings in Public Policy**

Credits: 1-3 Grading Method: Regular, Audit, Sat-Fail

Guided readings for discussions on public policy.

Contact department for information to register for this course.

PLCY798R **Readings in Public Policy; Quantitative Research Methods and Public Policy**

Credits: 3 Grading Method: Regular, Audit, Sat-Fail

Guided readings for discussions on public policy.

0101	Yueming Qiu	Seats (Total: 20)
	Th 1:30pm - 4:00pm	HBK 0109

PLCY798T **Readings in Public Policy; Sustainable Development, Democracy and Human Rights in Peru**

Credits: 3 Grading Method: Regular, Audit, Sat-Fail

Guided readings for discussions on public policy.

Contact department for information to register for this course.

PLCY898 **Pre-Candidacy Research**

Credits: 1-8 Grading Method: Regular, Sat-Fail

Contact department for information to register for this course.

PLCY899 **Doctoral Dissertation Research**

(Perm req)

Credits: 6 Grading Method: Sat-Fail

Contact department for information to register for this course.

PLSC Plant Sciences Spring 2020

PLSC100 **Introduction to Horticulture**

Credits: 4 Grading Method: Regular, Pass-Fail, Audit CORE: LL General Education: DSNL (if taken with PLSC111), DSNS (if taken with PLSC111)

Credit only granted for: PLSC100 or PLSC110 and PLSC111. Formerly: PLSC100.

An overview to the art and science of horticulture. Relationships between plant science and plant production, the use of horticultural plants and plant stress as influenced by cultural practices.

Students must pay a $50.00 lab materials fee.

0101	Diana Cochran	Seats (Total: 22)	
	TuTh 11:00am - 12:15pm	ESJ 2208	
	M 10:00am - 12:20pm	PLS 1153	Lab
	M 9:00am - 9:50am	PLS 1153	Discussion

0102	Diana Cochran	Seats (Total: 22)	
	TuTh 11:00am - 12:15pm	ESJ 2208	
	M 2:00pm - 4:20pm	PLS 1153	Lab
	M 1:00pm - 1:50pm	PLS 1153	Discussion
0103	Diana Cochran	Seats (Total: 22)	
	TuTh 11:00am - 12:15pm	ESJ 2208	
	Tu 1:30pm - 3:50pm	PLS 1153	Lab
	Tu 12:30pm - 1:20pm	PLS 1153	Discussion
0104	Diana Cochran	Seats (Total: 22)	
	TuTh 11:00am - 12:15pm	ESJ 2208	
	W 10:00am - 12:20pm	PLS 1153	Lab
	W 9:00am - 9:50am	PLS 1153	Discussion
0105	Diana Cochran	Seats (Total: 22)	
	TuTh 11:00am - 12:15pm	ESJ 2208	
	W 2:00pm - 4:20pm	PLS 1153	Lab
	W 1:00pm - 1:50pm	PLS 1153	Discussion
0106	Diana Cochran	Seats (Total: 22)	
	TuTh 11:00am - 12:15pm	ESJ 2208	
	Th 1:30pm - 3:50pm	PLS 1153	Lab
	Th 12:30pm - 1:20pm	PLS 1153	Discussion
0107	Diana Cochran	Seats (Total: 22)	
	TuTh 11:00am - 12:15pm	ESJ 2208	
	F 10:00am - 12:20pm	PLS 1153	Lab
	F 9:00am - 9:50am	PLS 1153	Discussion

PLSC226 **Plant Diversity**

Credits: 4 Grading Method: Regular, Pass-Fail, Audit

Prerequisite: PLSC201; or permission of instructor.

Students will learn to identify and understand relationships among major plant families of northeastern North America, especially of the Mid-Atlantic region, through lecture, field, and laboratory study. Characteristics and biogeography of and evolutionary relationships among families are emphasized in lecture. These characteristics will be woven together to provide understanding of the ecological and evolutionary drivers of plant diversity and the history of the field. Sight identification of families, genera, and species and keying skills are stressed in field and laboratory sessions.

0101	Maile Neel	Seats (Total: 10)	
	TuTh 12:30pm - 1:45pm	PLS 1162	
	Th 9:30am - 12:20pm	PLS 1153	Lab

PLSC250 **Lawns in the Landscape: Environmental Hero or Villain?**

Credits: 3 | Grading Method: Regular, Pass-Fail, Audit | General Education: DSNS, SCIS

Cross-listed with ENSP250. Credit only granted for: ENSP250 or PLSC250.

Examination of the lawn as an element in the anthropogenic landscape and its influence on global warming, regional air and water quality, ecological diversity, mammalian pesticide exposure and consumptive water use. Demographic and socioeconomic factors are examined in the context of being predictors of landscape aesthetic desires and lawn management behaviors. Policies that incentivize lawn alternatives or changes in lawn management behavior are discussed.

0101	Mark Carroll	Seats (Total: 25)
	MW 4:00pm - 5:15pm	SYM 0209

PLSC251 **Financial Applications for the Green Industry**

Credits: 3 | Grading Method: Regular, Pass-Fail | General Education: DSSP

Credit only granted for: PLSC361 or PLSC251. Formerly: PLSC361.

An introduction to the application of financial principles in the Green Industry business sector. Accounting, pricing, and estimating, job cost management and production efficiency are discussed and manifested in Scholarship In Practice exercises, case studies and a business plan project.

0101	Dora Cortez, Steven Cohan	Seats (Total: 40)
	Class time/details on ELMs	ONLINE

PLSC254 **Woody Plants for Mid-Atlantic Landscape II**

Credits: 3 | Grading Method: Regular, Pass-Fail, Audit

Prerequisite: PLSC100 and PLSC253; or permission of instructor.

A field and laboratory study of trees, shrubs, and vines used in ornamental plantings. Major emphasis is placed on introduced and evergreen plant materials.

0101	Karen Petroff WF 12:00pm - 12:50pm F 1:00pm - 3:50pm	Seats (Total: 24) PLS 1140 PLS 1153	 Lab
0102	Karen Petroff WF 12:00pm - 12:50pm F 1:00pm - 3:50pm	Seats (Total: 24) PLS 1140 PLS 1113	 Lab

PLSC271 **Plant Propagation**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Prerequisite: PLSC100; or (BSCI170 and BSCI171); or BSCI105.

A study of the principles and practices in the propagation of plants.

0101	Gary Coleman TuTh 2:00pm - 2:50pm Tu 3:30pm - 5:15pm	Seats (Total: 12) PLS 1117 PLS 1117	 Lab
0102	Gary Coleman TuTh 2:00pm - 2:50pm Th 3:30pm - 5:15pm	Seats (Total: 12) PLS 1117 PLS 1117	 Lab

PLSC275 **Fundamentals of Agricultural Chemistry**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Prerequisite: CHEM131 and CHEM132. And PLSC100; or PLSC101; or (BSCI160 and BSCI161); or (BSCI170 and BSCI171); or BSCI105; or BSCI106. Restriction: Must not have completed CHEM104 or CHEM105. And must be in a major within the AGNR-Plant Science & Landscape Architecture department; or must be in a major within the AGNR-Animal & Avian Sciences department; or permission of instructor. Credit only granted for: PLSC275, CHEM104, or CHEM105.

An in-depth discussion of chemistry targeted to students enrolled in plant and animal management curricula offered in AGNR. Covers the nomenclature and basic functional groups in organic chemistry, secondary plant metabolites, basic tenets of organic agriculture and the creation of genetically-modified plants. The chemistry, handling and usage of agricultural pesticides is also discussed.

0101	Candace Pritchard TuTh 3:30pm - 4:45pm	Seats (Total: 40) PLS 1119	

PLSC303 **Global Food Systems**

Credits: 3 | Grading Method: Regular, Pass-Fail, Audit | , D | General Education: DSNS

Prerequisite: BSCI170 and BSCI171; or BSCI105; or students who have taken courses with comparable content may contact the department.

An introduction to the global food system and its agricultural, biophysical, and socioeconomic domains. The problems and potentials for increasing world food supply based on current agronomic knowledge. Emphasis on international aspects of food crop production as its interrelationships with people and the environment in the developing world.

0101	Kate Tully	Seats (Total: 20)
	TuTh 12:30pm - 1:45pm	PLS 1164

PLSC388 **Honors Thesis Research**

Credits: 3-6 | Grading Method: Regular, Pass-Fail, Audit

Undergraduate honors thesis research conducted under the direction of an AGNR faculty member in partial fulfillment of the requirements of the College of AGNR Honors Program. The thesis will be defended to a faculty committee.

0101	Instructor: TBA	Seats (Total: 10)
	Contact instructor or department for details.	
	Contact instructor or department for details.	

PLSC399 **Special Problems in Plant Science**

Credits: 1-3 | Grading Method: Regular, Pass-Fail, Audit

Research projects in Plant Science including field, greenhouse, laboratory, studio and/or library studies. Research is conducted under the direction of a faculty member.

Contact department for information to register for this course.

PLSC400 **Plant Physiology**

Credits: 4 | Grading Method: Regular, Pass-Fail, Audit

Prerequisite: BSCI170 and BSCI171; or BSCI105; or PLSC201. And CHEM231 and CHEM232; or CHEM237; or permission of AGNR-Plant Science & Landscape Architecture department; or permission of CMNS-Biological Sciences UG Program. Cross-listed with BSCI442. Credit only granted for: BSCI442 or PLSC400.

A survey of plant physiology and development responses and adaptation to the environment.

0101	Candace Pritchard MWF 1:00pm - 1:50pm Tu 9:00am - 12:00pm	Seats (Total: 24) PLS 1130 PLS 1153	 Lab
0102	Candace Pritchard MWF 1:00pm - 1:50pm Tu 4:30pm - 7:30pm	Seats (Total: 24) PLS 1130 PLS 1153	 Lab

PLSC407 **Advanced Crop Science**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Prerequisite: PLSC101 and (BSCI160 and BSCI161) or BSCI106.

A study of principles of production for forage crops, corn, small grains, rice, millets, sorghums, soybeans and other oil seed crops. Their seed production, processing, distribution and the current federal and state seed control programs for these agronomic crops will also be discussed.

0101	William Phillips MWF 12:00pm - 12:50pm	Seats (Total: 20) PLS 1158	

PLSC411 **Plant genetics**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Prerequisite: BSCI170; and BSCI171. Or PLSC201; or permission of AGNR-Plant Science & Landscape Architecture department.

An introduction to genetic principles and technologies in plants, centered on linking phenotype to genotype. Topics include Mendelian inheritance of single and complex traits, epigenetics, population genetics and plant breeding. Examples on creating and mapping genetic mutations in both model plants and non-model crops are discussed. Current genetic and genomic approaches are highlighted, such as genome engineering and reprogramming, TILLING, and genome-wide association mapping.

0101	Yiping Qi, Vijay Tiwari MWF 11:00am - 11:50am	Seats (Total: 25) PLS 1146	

PLSC425 **Green Roofs and Urban Sustainability**

Credits: 1 Grading Method: Regular, Pass-Fail, Audit

Credit only granted for: PLSC425 or PLSC489V. Formerly: PLSC489V.

The integration of disciplines associated with sustainability issues. Topics range from plant science to design to policy, all of which can contribute to improving the urban environment.

0101	Andrew Ristvey, John Lea-Cox	Seats (Total: 65)	
	Tu 11:00am - 12:15pm	PLS 1130	

PLSC432 **Greenhouse Crop Production**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Prerequisite: PLSC201 and PLSC202; and must have completed or be concurrently enrolled in BSCI442.

The commercial production and marketing of ornamental plant crops under greenhouse, plastic houses and out-of-door conditions.

This course is only offered in the spring semester during even numbered years.

0101	John Lea-Cox	Seats (Total: 20)	
	TuTh 3:30pm - 4:45pm	PLS 1146	
	Th 5:00pm - 7:00pm	RGC 1111	Lab

PLSC452 **Environmental Horticulture**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Prerequisite: PLSC100 or PLSC101; and (PLSC253 and PLSC254).

Environmental horticulture principles used in the establishment and maintenance of plant materials in residential and commercial landscapes will be addressed. The effect of soil conditions, environmental factors, and commercial practices will be discussed in relation to the growth and development of newly-installed plant materials. Field diagnostics will be used by students to assess significant problems of plant decline. Environmental sustainability will be combined with current commercial practices of storm water management, nutrient management, and irrigation management to achieve an integrated approach to plant management.

Students must pay a $60.00 lab materials fee.

0101	Diana Cochran	Seats (Total: 20)	
	MW 1:00pm - 1:50pm	PLS 1117	
	W 10:00am - 12:50pm	PLS 1117	Lab

PLSC460 **Application of Knowledge in Plant Sciences**

Credits: 3 | Grading Method: Regular, Pass-Fail, Audit | CORE: CS | General Education: DSSP

Prerequisite: PLSC100, PLSC101, or PLSC201; or permission of instructor. Recommended: ENGL393 and ENST200; and (PLSC389 or PLSC399). Restriction: Senior standing or higher. And must be in a major within the AGNR-Plant Science & Landscape Architecture department; or must be in another related major.

A capstone course based on interactions with plant science professionals and student-led class discussions. Students will apply their knowledge and experience to practical issues in the discipline, further develop critical thinking ability, and enhance their communication, teamwork, and professional skills. Topics will include nutrient management, integrated pest management, plant interactions with urban and rural ecosystems, planning of public grounds, plant biotechnology, and teaching skills.

0101	William Phillips, Vijay Tiwari, John Erwin, Angus Murphy, Carol Allen	Seats (Total: 30)
	M 2:00pm - 3:50pm	PHY 4221
	W 2:00pm - 2:50pm	PHY 4221

PLSC471 **Forest Ecology**

Credits: 3 | Grading Method: Regular, Pass-Fail, Audit

Prerequisite: PLSC201; or (BSCI160 and BSCI161); or BSCI106.

An understanding of the forest ecosystem, its structure and the processes that regulate it are provided. It also considers changes that occur in forests, the interaction of environment and genetics in promoting ecosystem sustainability, and the role of human influences on urban forest ecosystems.

0101	Jessica Sanders	Seats (Total: 50)
	Th 2:00pm - 3:15pm	PLS 1130
	Class time/details on ELMs	ONLINE

PLSC489L **Special Topics in Plant Science; Scientists Teaching and Translating Science**

Credits: 2 | Grading Method: Regular, Pass-Fail, Audit

A lecture and or laboratory series organized to study a selected phase of Plant Science not covered by existing courses. Credit according to time scheduled and organization of the course.

Explore methods in pedagogy and andragogy to facilitate science learning. Examine teaching methods, motivation in learning and foundations of assessment.

0101	Melissa Welsh	Seats (Total: 20)	
	W 10:00am - 11:50am	PLS 2137	

PLSC489O **Special Topics in Plant Science; Plant Taxonomy**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

A lecture and or laboratory series organized to study a selected phase of Plant Science not covered by existing courses. Credit according to time scheduled and organization of the course.

Students will learn to identify and understand relationships among major plant families of northeastern North America, especially of the Mid-Atlantic region, through lecture, field, and laboratory study. Characteristics and biogeography of and evolutionary relationships among families are emphasized in lecture. These characteristics will be woven together to provide understanding of the ecological and evolutionary drivers of plant diversity and the history of the field. Sight identification of families, genera, and species and keying skills are stressed in field and laboratory sessions.

0101	Maile Neel	Seats (Total: 10)	
	TuTh 12:30pm - 1:45pm	PLS 1162	
	Th 9:30am - 12:20pm	PLS 1153	Lab

PLSC489W **Special Topics in Plant Science; Plant-Microbe Associations**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

A lecture and or laboratory series organized to study a selected phase of Plant Science not covered by existing courses. Credit according to time scheduled and organization of the course.

Understanding the diverse relationships between plants and their associated microbes is important for crop protection and food security A comparative analysis of the ecology, physiology and molecular genetics of plant - microbe interactions along with their impact on society and the surrounding ecosystem. Students will learn and gain an understanding of various microbiomes and their impact on plant growth, pathogenic strategies used to overcome plant immune systems and derive nutrients from host plants, the molecular mechanisms used by plants to recognize and respond to invading pathogens, symbiotic relationships between plants and microbes, prospects of genetic engineering of plants for disease resistance

0101	Shunyuan Xiao, James Culver	Seats (Total: 10)	
	TuTh 9:30am - 10:45am	PLS 1172	

PLSC608T **Research Methods; Supervised Teaching**

Credits: 2 Grading Method: Regular, Audit, Sat-Fail

An overview of research methods and applications related to plant sciences. Topics covered include current research advances, professional conduct and ethics, and preparation of grant proposals, manuscripts, and scientific presentations.

5201	Christopher Walsh Contact instructor or department for details.	Seats (Total: 5)
6201	Jianhua Zhu Contact instructor or department for details.	Seats (Total: 5)
7501	Wendy Peer Contact instructor or department for details.	Seats (Total: 5)

PLSC618 **Advances in Research; Critiquing Primary Plant Science Literature**

Credits: 1 Grading Method: Regular, Audit, Sat-Fail

Discussion of advances in plant science research based on classic and current scientific literature.

0101	James Culver Tu 3:30pm - 4:45pm	Seats (Total: 15) PLS 1164

PLSC619 **Seminars in Plant Science and Landscape Architecture**

Credits: 1 Grading Method: Regular, Audit, Sat-Fail

Enhancement of student learning and enrichment of student curriculum for the Plant Science Graduate Program through a combination of research seminar attendance and post-seminar discussion. Research seminars will be given by prominent scientists in the field of plant sciences and post-seminar discussions will be facilitated by the instructor along with student discussion leaders.

0101	Mengjun Hu Th 3:30pm - 5:50pm F 10:00am - 10:50am	Seats (Total: 60) PLS 1140 PLS 2107	 Discussion

PLSC689C **Special Topics; Conservation Biology**

(Perm req)

Credits: 1-3 Grading Method: Regular, Audit, Sat-Fail

Credit according to time scheduled and organization of the course. Organized as a lecture series on a specialized advanced topic.

Prerequisite: permission of department.

0101	Maile Neel	Seats (Total: 8)
	Contact instructor or department for details.	

PLSC689D **Special Topics; Plant Physiological Ecology**

(Perm req)

Credits: 2 Grading Method: Regular, Audit, Sat-Fail

Credit according to time scheduled and organization of the course. Organized as a lecture series on a specialized advanced topic.

Growth, productivity and survival are intimately linked to a plant's ability to adjust to its environment. The information provided is designed to provide an introduction to the basic physical and psysiological principles necessary for understanding the interactions between plants and their environment. The overall objective is to understand plant responses and adaptations to the environment and the ecological relevance of these responses.

0101	Joseph Sullivan	Seats (Total: 1)
	Contact instructor or department for details.	

PLSC689K **Special Topics; Landscape Genetics**

Credits: 2 Grading Method: Regular, Sat-Fail

Credit according to time scheduled and organization of the course. Organized as a lecture series on a specialized advanced topic.

This course covers basic theory underlying the field of landscape genetics and demonstrates application of that theory in real cases. Landscape genetics is a multidisciplinary field at the intersection of population genetics and landscape ecology. In this blended course, lectures will be given remotely by some of the leaders in the field. Lectures will be followed by local discussion and then a summary online discussion with classes at the other universities. You must attend the local class meeting and participate in the discussions. There will be some homework assignments created by the instructors that you will turn in locally. An optional lab section (PLSC689L) is offered to provide hands on use of statistical techniques used to analyze landscape genetic data.

0101	Maile Neel	Seats (Total: 20)
	W 11:00am - 1:30pm	PLS 1125

PLSC689L **Special Topics; Landscape Genetics Lab**

Credits: 1 Grading Method: Regular, Sat-Fail

Credit according to time scheduled and organization of the course. Organized as a lecture series on a specialized advanced topic.

This lab complements the material presented in PLSC689K and registration in that course is required to enroll in this lab. Students will analyze landscape genetic data using statistical techniques in R and specialized programs. Lab time is available for working on these assignments but their completion will require additional time outside of the formal lab period. Familiarity with use of R will be helpful but is not required. Basic use of R will be covered at the beginning of the term.

0101	Maile Neel	Seats (Total: 20)
	F 1:30pm - 3:30pm	PLS 1125

PLSC689W **Special Topics; Plant-Microbe Associations**

Credits: 3 Grading Method: Regular, Audit, Sat-Fail

Credit according to time scheduled and organization of the course. Organized as a lecture series on a specialized advanced topic.

Understanding the diverse relationships between plants and their associated microbes is important for crop protection and food security. A comparative analysis of the ecology, physiology and molecular genetics of plant - microbe interactions along with their impact on society and the surrounding ecosystem. Students will learn and gain an understanding of various microbiomes and their impact on plant growth, pathogenic strategies used to overcome plant immune systems and derive nutrients from host plants, the molecular mechanisms used by plants to recognize and respond to invading pathogens, symbiotic relationships between plants and microbes, prospects of genetic engineering of plants for disease resistance.

0101	James Culver, Shunyuan Xiao	Seats (Total: 10)
	TuTh 9:30am - 10:45am	PLS 1172

PLSC789M **Advances in Research; Plant Membrane Biology**

Credits: 1 Grading Method: Regular, Audit, Sat-Fail

Discussion of advances in plant science research based on classic and current scientific literature.

0101	Angus Murphy, Wendy Peer	Seats (Total: 10)
	Contact instructor or department for details.	

PLSC799 **Master's Thesis Research**

Credits: 1-6 Grading Method: Sat-Fail

Contact department for information to register for this course.

PLSC898 **Pre-Candidacy Research**

Credits: 1-8 Grading Method: Regular, Sat-Fail

Contact department for information to register for this course.

PLSC899 **Doctoral Dissertation Research**

(Perm req)

Credits: 6 Grading Method: Sat-Fail

Contact department for information to register for this course.

PORT Portuguese Spring 2020

PORT104 **Intensive Elementary Portuguese**

Credits: 4 Grading Method: Regular, Pass-Fail, Audit

Prerequisite: Must have appropriate Foreign Language Placement Test (FLPT) score. Credit only granted for: PORT103 or PORT104. Formerly: PORT104.

Covers speaking, reading, writing, listening, and culture of Portuguese-speaking world.

Contact department for information to register for this course.

PORT204 **Intensive Intermediate Portuguese**

Credits: 4 Grading Method: Regular, Pass-Fail, Audit

Prerequisite: PORT103 or PORT104; or must have appropriate Foreign Language Placement Test (FLPT) score. Credit only granted for: PORT203 or PORT204. Formerly: PORT204.

Covers speaking, reading, writing, listening, and culture of Portuguese-speaking world.

0101	Thayse Lima	Seats (Total: 20)
	TuTh 11:00am - 12:15pm W 12:00pm - 12:50pm	JMZ 1117 JMZ 1120

PORT207 **Intermediate Reading and Conversation in Portuguese II**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Prerequisite: PORT205; or students who have taken courses with comparable content may contact the department. Restriction: Not open to native/fluent speakers of Portuguese.

Advanced practice of oral and written Portuguese. Reading and discussions of texts, review of grammar, and vocabulary practice.

0101	Regina Igel TuTh 11:00am - 12:15pm	Seats (Total: 20) JMZ 1124

PORT332 **Brazilian Cinema**

Credits: 3 | Grading Method: Regular, Pass-Fail, Audit | General Education: DSHU

Cross-listed with FILM332. Credit only granted for: PORT332, FILM332, or PORT378. Formerly: PORT378.

Brazilian films from the late 1950s to the present with a special view to the relationship between cinema, society, historical dates, and social changes in Brazil. Taught in English.

0101	Regina Igel TuTh 12:30pm - 1:45pm	Seats (Total: 20) JMZ 0118

PORT386 **Experiential Learning**

(Perm req)

Credits: 3-6 | Grading Method: Regular, Pass-Fail

Restriction: Permission of ARHU-School of Languages, Literatures, and Cultures department; and junior standing or higher.

Contact department for information to register for this course.

PORT399 **Independent Study in Portuguese**

(Perm req)

Credits: 1-3 | Grading Method: Regular, Pass-Fail, Audit

Specific readings in literature under the supervision of a faculty member of the department.

Contact department for information to register for this course.

PORT405 **Portuguese for Spanish Speakers**

Credits: 3 | Grading Method: Regular, Pass-Fail, Audit

Restriction: Must have native or acquired fluency in Spanish.

Intensive basic grammar, reading and auditory comprehension. Native or acquired fluency in Spanish required.

0101	Thayse Lima TuTh 3:30pm - 4:45pm	Seats (Total: 20) JMZ 2207	

PSYC Psychology Spring 2020

The following courses may involve the use of animals. Students who are concerned about the use of animals in teaching have the responsibility to contact the instructor, prior to course enrollment, to determine whether animals are to be used in the course, whether class exercises involving animals are optional or required and what alternatives, if any, are available. The Department of Psychology enforces course prerequisites. Students who do not meet the course prerequisites will be administratively dropped from the course.

PSYC100 **Introduction to Psychology**

Credits: 3 | Grading Method: Regular, Pass-Fail, Audit | CORE: SB | General Education: DSHS, DSNS

A basic introductory course, intended to bring the student into contact with the major problems confronting psychology and the more important attempts at their solution.

Discussion sections do not meet until after first lecture. Research requirement: may involve participation in research.

Click here for course syllabus.

0101	Benjamin Jones W 4:00pm - 5:20pm F 9:00am - 9:50am Class time/details on ELMs	Seats (Total: 30) BRB 1101 BPS 1236 ONLINE	 Discussion Discussion
0102	Benjamin Jones W 4:00pm - 5:20pm F 11:00am - 11:50am Class time/details on ELMs	Seats (Total: 30) BRB 1101 BPS 1238 ONLINE	 Discussion Discussion
0103	Benjamin Jones W 4:00pm - 5:20pm F 11:00am - 11:50am Class time/details on ELMs	Seats (Total: 30) BRB 1101 BPS 1236 ONLINE	 Discussion Discussion
0104	Benjamin Jones W 4:00pm - 5:20pm F 1:00pm - 1:50pm Class time/details on ELMs	Seats (Total: 30) BRB 1101 BPS 1228 ONLINE	 Discussion Discussion

0105	Benjamin Jones	Seats (Total: 30)	
	W 4:00pm - 5:20pm	BRB 1101	
	F 2:00pm - 2:50pm	BPS 1238	Discussion
	Class time/details on ELMs	ONLINE	Discussion
0106	Benjamin Jones	Seats (Total: 30)	
	W 4:00pm - 5:20pm	BRB 1101	
	F 9:00am - 9:50am	BPS 1236	Discussion
	Class time/details on ELMs	ONLINE	Discussion
0107	Benjamin Jones	Seats (Total: 30)	
	W 4:00pm - 5:20pm	BRB 1101	
	F 11:00am - 11:50am	BPS 1238	Discussion
	Class time/details on ELMs	ONLINE	Discussion
0108	Benjamin Jones	Seats (Total: 30)	
	W 4:00pm - 5:20pm	BRB 1101	
	F 11:00am - 11:50am	BPS 1236	Discussion
	Class time/details on ELMs	ONLINE	Discussion
0109	Benjamin Jones	Seats (Total: 30)	
	W 4:00pm - 5:20pm	BRB 1101	
	F 1:00pm - 1:50pm	BPS 1238	Discussion
	Class time/details on ELMs	ONLINE	Discussion
0110	Benjamin Jones	Seats (Total: 30)	
	W 4:00pm - 5:20pm	BRB 1101	
	F 2:00pm - 2:50pm	BPS 1238	Discussion
	Class time/details on ELMs	ONLINE	Discussion
0201	Dylan Selterman	Seats (Total: 30)	
	Th 3:30pm - 4:50pm	BRB 1101	
	F 9:00am - 9:50am	BPS 0283	Discussion
	Class time/details on ELMs	ONLINE	Discussion
0202	Dylan Selterman	Seats (Total: 30)	
	Th 3:30pm - 4:50pm	BRB 1101	
	F 10:00am - 10:50am	BPS 1232	Discussion
	Class time/details on ELMs	ONLINE	Discussion

0203	Dylan Selterman	Seats (Total: 30)	
	Th 3:30pm - 4:50pm	BRB 1101	
	F 1:00pm - 1:50pm	BPS 0283	Discussion
	Class time/details on ELMs	ONLINE	Discussion
0204	Dylan Selterman	Seats (Total: 30)	
	Th 3:30pm - 4:50pm	BRB 1101	
	F 12:00pm - 12:50pm	BPS 1238	Discussion
	Class time/details on ELMs	ONLINE	Discussion
0205	Dylan Selterman	Seats (Total: 30)	
	Th 3:30pm - 4:50pm	BRB 1101	
	F 2:00pm - 2:50pm	BPS 1228	Discussion
	Class time/details on ELMs	ONLINE	Discussion
0206	Dylan Selterman	Seats (Total: 30)	
	Th 3:30pm - 4:50pm	BRB 1101	
	F 9:00am - 9:50am	BPS 0283	Discussion
	Class time/details on ELMs	ONLINE	Discussion
0207	Dylan Selterman	Seats (Total: 30)	
	Th 3:30pm - 4:50pm	BRB 1101	
	F 10:00am - 10:50am	BPS 1232	Discussion
	Class time/details on ELMs	ONLINE	Discussion
0208	Dylan Selterman	Seats (Total: 30)	
	Th 3:30pm - 4:50pm	BRB 1101	
	F 1:00pm - 1:50pm	BPS 0283	Discussion
	Class time/details on ELMs	ONLINE	Discussion
0209	Dylan Selterman	Seats (Total: 30)	
	Th 3:30pm - 4:50pm	BRB 1101	
	F 12:00pm - 12:50pm	BPS 0283	Discussion
	Class time/details on ELMs	ONLINE	Discussion
0210	Dylan Selterman	Seats (Total: 30)	
	Th 3:30pm - 4:50pm	BRB 1101	
	F 2:00pm - 2:50pm	BPS 0283	Discussion
	Class time/details on ELMs	ONLINE	Discussion
0301	Dirk Parham	Seats (Total: 90)	
	MW 4:30pm - 5:45pm	SYM 0200	

PSYC123 **The Psychology of Getting Hired**

Credits: 1 Grading Method: Regular, Pass-Fail

Restriction: Must not be in a Robert H. Smith School of Business degree program. Additional information: Cannot be used in place of BMGT367 toward a degree program in the Robert H. Smith School of Business.

Designed to introduce students to the science behind the hiring process and to prepare individuals with the academic and practical training required. Together we will explore psychological principles that influence the selection process and how individuals can apply them for the competitive edge that makes others Fear the Turtle!

0101	Lee Penn Class time/details on ELMs	Seats (Total: 100) ONLINE	
0201	Lee Penn Class time/details on ELMs	Seats (Total: 100) ONLINE	
0301	Lee Penn Class time/details on ELMs	Seats (Total: 100) ONLINE	

PSYC200 **Statistical Methods in Psychology**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit General Education: FSAR

Prerequisite: PSYC100. And 1 course with a minimum grade of C- from (MATH107, MATH111, MATH120, MATH130, MATH136, MATH140, STAT100); or must have completed MATH220 with a minimum grade of C-. Credit only granted for: BIOM301, BMGT230, CCJS200, ECON230, ECON321, EDMS451, GEOG306, GEOL351, GVPT422, INST314, JOUR405, PSYC200 or SOCY201. (These courses do not necessarily meet the same major requirements-check with your advisor to see which of these courses will count for your major).

A basic introduction to quantitative methods used in psychological research.

Restricted to PSYC, ENSP and BSCI majors.

Click here for course syllabus.

0101	Benjamin Jones TuTh 8:00am - 9:15am M 9:00am - 9:50am Class time/details on ELMs	Seats (Total: 30) BPS 1250 BPS 1238 ONLINE	 Discussion Discussion

0102	Benjamin Jones	Seats (Total: 30)	
	TuTh 8:00am - 9:15am	BPS 1250	
	M 10:00am - 10:50am	BPS 1238	Discussion
	Class time/details on ELMs	ONLINE	Discussion
0103	Benjamin Jones	Seats (Total: 30)	
	TuTh 8:00am - 9:15am	BPS 1250	
	M 11:00am - 11:50am	BPS 1238	Discussion
	Class time/details on ELMs	ONLINE	Discussion
0104	Benjamin Jones	Seats (Total: 30)	
	TuTh 8:00am - 9:15am	BPS 1250	
	M 1:00pm - 1:50pm	BPS 1238	Discussion
	Class time/details on ELMs	ONLINE	Discussion
0105	Benjamin Jones	Seats (Total: 30)	
	TuTh 8:00am - 9:15am	BPS 1250	
	M 2:00pm - 2:50pm	BPS 1238	Discussion
	Class time/details on ELMs	ONLINE	Discussion
0201	Benjamin Jones	Seats (Total: 24)	
	TuTh 9:30am - 10:45am	BPS 1243	
	M 9:00am - 9:50am	BPS 1228	Discussion
	Class time/details on ELMs	ONLINE	Discussion
0202	Benjamin Jones	Seats (Total: 24)	
	TuTh 9:30am - 10:45am	BPS 1243	
	M 10:00am - 10:50am	BPS 1232	Discussion
	Class time/details on ELMs	ONLINE	Discussion
0203	Benjamin Jones	Seats (Total: 23)	
	TuTh 9:30am - 10:45am	BPS 1243	
	M 11:00am - 11:50am	BPS 1232	Discussion
	Class time/details on ELMs	ONLINE	Discussion
0204	Benjamin Jones	Seats (Total: 23)	
	TuTh 9:30am - 10:45am	BPS 1243	
	M 1:00pm - 1:50pm	BPS 1236	Discussion
	Class time/details on ELMs	ONLINE	Discussion

0205	Benjamin Jones	Seats (Total: 23)	
	TuTh 9:30am - 10:45am	BPS 1243	
	M 2:00pm - 2:50pm	BPS 1232	Discussion
	Class time/details on ELMs	ONLINE	Discussion

PSYC221 **Social Psychology**

Credits: 3 | Grading Method: Regular, Pass-Fail, Audit | CORE: SB | General Education: DSHS, DSSP

Prerequisite: PSYC100.

The influence of social factors on the individual and on interpersonal behavior. Includes topics such as conformity, attitude change, person perception, interpersonal attraction, and group behavior.

Click here for course syllabus.

0101	Linda Zou	Seats (Total: 150)	
	MW 2:00pm - 2:50pm	BPS 1250	
	F 2:00pm - 2:50pm	BRB 1101	Discussion
0201	Dylan Selterman	Seats (Total: 150)	
	TuTh 11:00am - 12:15pm	PHY 1410	

PSYC289D **Living the Good Life: The Psychology of Happiness**

Credits: 3 | Grading Method: Regular, Pass-Fail, Audit | CORE: SB | General Education: DSHS, SCIS

Credit only granted for: PSYC234 or PSYC289D. Formerly: PSYC289D.

What are the secrets to living a happy life? Can happiness be found within the context of war, a depressed economy, violence and other major stressors? Are some people born happier than others? This course will teach you the scientific process that psychologists use to study happiness (and related emotional variables) and give you the opportunity to practice applying that process in a number of ways. You will learn how we (a) gather and critically evaluate research findings in the existing literature, (b) integrate those findings into coherent and testable theories, (c) design and conduct valid scientific research that tests those theories and extends our knowledge, and (d) effectively communicate our theories and findings to a wide range of audiences. The result of the process is a more accurate and objective understanding happiness, and that is what prepares you to apply your scientific understanding to explain and influence a wide range of outcomes.

What are the secrets to living a happy life? This course will introduce students to contemporary scientific approaches to studying age-old questions about how to get happy.

0101	Dylan Selterman TuTh 2:00pm - 3:15pm	Seats (Total: 135) BPS 1250	
0201	Dylan Selterman MW 3:00pm - 4:15pm	Seats (Total: 100) ESJ 1224	

PSYC300 **Research Methods in Psychology Laboratory**

Credits: 4 Grading Method: Regular, Pass-Fail, Audit General Education: DSSP

Prerequisite: PSYC200. Restriction: Must be in Psychology program. Credit only granted for: PSYC300 or PSYC309R. Formerly: PSYC309R.

A general introduction and overview to the fundamental theoretical, conceptual, and practical issues in psychological research in both the laboratory and the field.

Click here for course syllabus.

0101	Tracy Tomlinson TuTh 8:00am - 9:15am Th 2:00pm - 3:50pm	Seats (Total: 16) ESJ 1202 SPH 0301	 Discussion
0102	Tracy Tomlinson TuTh 8:00am - 9:15am Th 4:00pm - 5:50pm	Seats (Total: 16) ESJ 1202 BPS 1228	 Discussion
0103	Tracy Tomlinson TuTh 8:00am - 9:15am F 8:00am - 9:50am	Seats (Total: 16) ESJ 1202 BPS 1228	 Discussion
0104	Tracy Tomlinson TuTh 8:00am - 9:15am F 10:00am - 11:50am	Seats (Total: 16) ESJ 1202 BPS 1228	 Discussion
0105	Tracy Tomlinson TuTh 8:00am - 9:15am F 12:00pm - 1:50pm	Seats (Total: 16) ESJ 1202 BPS 1236	 Discussion
0106	Tracy Tomlinson TuTh 8:00am - 9:15am F 2:00pm - 3:50pm	Seats (Total: 16) ESJ 1202 BPS 1234	 Discussion

0201	Tracy Tomlinson TuTh 9:30am - 10:45am Th 2:00pm - 3:50pm	Seats (Total: 16) ESJ 1202 BPS 1234	Discussion
0202	Tracy Tomlinson TuTh 9:30am - 10:45am Th 4:00pm - 5:50pm	Seats (Total: 16) ESJ 1202 BPS 1234	Discussion
0203	Tracy Tomlinson TuTh 9:30am - 10:45am F 8:00am - 9:50am	Seats (Total: 16) ESJ 1202 BPS 1234	Discussion
0204	Tracy Tomlinson TuTh 9:30am - 10:45am F 10:00am - 11:50am	Seats (Total: 16) ESJ 1202 ARC 1125	Discussion
0205	Tracy Tomlinson TuTh 9:30am - 10:45am F 12:00pm - 1:50pm	Seats (Total: 16) ESJ 1202 BPS 1232	Discussion
0206	Tracy Tomlinson TuTh 9:30am - 10:45am F 2:00pm - 3:50pm	Seats (Total: 16) ESJ 1202 BPS 1232	Discussion

PSYC301 **Biological Psychology**

Credits: 3 | Grading Method: Regular, Pass-Fail, Audit | General Education: DSNS

Prerequisite: BSCI170 and BSCI171; or equivalent.

Biological Psychology is the study of the physiological basis of behavior. In this course, we will first cover the basic principles of brain organization and neural transmission. We will then introduce traditional and modern research techniques in the field of behavioral neuroscience. The last portion of the course focuses on specific topics including psychopharmacology, learning and memory, emotion, stress, drug of abuse, neurological disorders (e.g., Alzheimer's disease and Parkinson's disease) and schizophrenia.

Restricted to PSYC (major code 20010/2001S) students only.

Click here for course syllabus.

0101	David Yager TuTh 12:30pm - 1:45pm	Seats (Total: 117) BPS 1250	

PSYC302 **Fundamentals of Learning and Behavior**

Credits: 3

Grading Method: Regular, Pass-Fail, Audit

Prerequisite: PSYC100. And BSCI170 and BSCI171; or BSCI105. Restriction: Restricted to psychology majors during the registration period. All other majors will be placed on a hold file. Credit only granted for: PSYC309F or PSYC302. Formerly: PSYC309F.

Overview of the fundamental types of learning that occur without formal instruction. The course covers fundamentals of classical and instrumental conditioning as studied in a variety of species in addition to more modern theories of learning. We will then explore how these principles influence diverse processes such as memory, attention, extinction, categorization, motivation, and in some cases, how they are implemented in the brain and disrupted in disease.

0101	Matthew Roesch	Seats (Total: 50)
	TuTh 12:30pm - 1:45pm	BPS 1236

PSYC303 **Professional Development for Psychology Majors**

Credits: 1

Grading Method: Regular, Pass-Fail, Audit

Prerequisite: PSYC123; or permission from the instructor with a completed resume. Restriction: Must have earned a minimum of 60 credits; and must be in the Psychology major.

An investigation of various career and graduate school opportunities available to psychology majors. Students will learn about a wide range of career fields, will learn how to utilize available resources to pursue career goals, and will take steps to advance their professional identity and development.

0101	Alexis Foley	Seats (Total: 50)
	Class time/details on ELMs	ONLINE

PSYC309G **Special Topics in Psychology**

(Perm req)

Credits: 1

Grading Method: Regular, Pass-Fail, Audit

Topics of current interest which represent extensions of or additions to topics covered in more general topical courses.

Restricted to students in the PREP: Psychology Research Empowerment Program

0101	Nazish Salahuddin	Seats (Total: 20)
	W 1:00pm - 1:50pm	BPS 0140

PSYC309L **Special Topics in Psychology; Personality and Social Psychology**

Credits: 1-3 Grading Method: Regular, Pass-Fail, Audit

Topics of current interest which represent extensions of or additions to topics covered in more general topical courses.

Contact department for information to register for this course.

PSYC319D **Community Interventions: Service Learning**

(Perm req)

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Apply knowledge gained in PSYC318 to provide interventions to individuals dealing with a community problem. Critical analysis of interventions and related research. Ethical and cultural considerations in the provision of services are addressed.

Prereqs: PSYC318D and Permission of Instructor.

0101	Karen O'Brien	Seats (Total: 12)
	MW 8:30am - 9:45am	BPS 1103

PSYC330 **Child Psychopathology**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Prerequisite: PSYC100. Restriction: Must be in Psychology program. Credit only granted for: PSYC309B or PSYC330. Formerly: PSYC309B.

Etiology, diagnosis, prevention and treatment of emotional disorders of childhood and adolescence.

0101	Lea Dougherty	Seats (Total: 100)
	MW 4:15pm - 5:30pm	BPS 1250

PSYC332 **Psychology of Human Sexuality**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Prerequisite: PSYC100.

A survey of historical and contemporary psychological views on a wide variety of sexual behaviors; theory and research bearing on the relationship between life span psychological development, psychological functioning, interpersonal processes and sexual behaviors; political and social issues involved in current sexual norms and practices.

Restricted to PSYC (major code 20010/2001S) students only.

Contact department for information to register for this course.

PSYC334 **Psychology of Interpersonal Relationships**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Prerequisite: PSYC100.

Research, theory and their practical applications pertaining to the development, maintenance and dissolution of human relationships. Processes critical to successful relating (e.g., communication, bargaining, conflict resolution), and issues associated with troubled dyadic relations with equal partners (e.g., jealousy, spouse abuse, divorce).

Restricted to PSYC (major code 20010) students only.

Click here for course syllabus.

0101	Colleen Kase	Seats (Total: 150)
	TuTh 3:30pm - 4:45pm	ESJ 1224

PSYC336 **Psychology of Women**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit , D General Education: DSHS

Prerequisite: PSYC100. Cross-listed with WMST336. Credit only granted for: PSYC336 or WMST336.

A survey of the biology, life span development, socialization, personality, mental health, and special issues of women.

Students will be expected to meet face-to-face during class time to complete small groupwork on 5-6 Fridays during the semester.

Click here for course syllabus.

0101	Monica Kearney	Seats (Total: 110)	
	MW 11:00am - 11:50am Class time/details on ELMs	BPS 1243 ONLINE	Discussion

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PSYC338A **Special Topics in Study Abroad III; Applied Psychology**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Special topics course taken as part of an approved study abroad program.

Contact department for information to register for this course.

PSYC338D **Special Topics in Study Abroad III**

Credits: 1-6 Grading Method: Regular, Pass-Fail, Audit

Special topics course taken as part of an approved study abroad program.

Contact department for information to register for this course.

PSYC338L **Special Topics in Study Abroad III; Psychology of Leadership**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Special topics course taken as part of an approved study abroad program.

Contact department for information to register for this course.

PSYC338P **Special Topics in Study Abroad III; Positive Psychology**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Special topics course taken as part of an approved study abroad program.

Contact department for information to register for this course.

PSYC341 **Introduction to Memory and Cognition**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Prerequisite: PSYC200 and PSYC300.

An introduction to the basic concepts of cognitive psychology, the scientific study of mental processes. Topics will include perception, attention, memory, reasoning, and language, with an emphasis on how findings from cognitive psychology can inform real-life thinking (e.g., memory strategies for studying, pitfalls of multitasking, and how/why our memories can fail us).

Restricted to PSYC (major code 20010/2001S) students only.

Click here for course syllabus.

0101	Alec Solway	Seats (Total: 117)
	TuTh 12:30pm - 1:45pm	BPS 1243

PSYC353 **Adult Psychopathology**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Prerequisite: PSYC100. Restriction: Must be in Psychology program.

The nature, diagnosis, etiology, and treatment of mental disorders.

Restricted to PSYC majors only.

Click here for course syllabus.

0101	Christopher Seitz-Brown TuTh 2:00pm - 3:15pm	Seats (Total: 117) ESJ 1202

PSYC354 Multicultural Psychology in the U.S.

Credits: 3 Grading Method: Regular, Pass-Fail, Audit , D General Education: DSHS

Prerequisite: PSYC100.

What are the psychological implications of racism, sexism, homophobia and other structures of inequality in the United States? How do socio-cultural privilege and oppression influence individual and group thoughts, feelings, and behaviors? This course will take a current events focus to understanding multicultural and social justice issues in psychology with an emphasis on self-reflection, mental health, cross-cultural communication, and strategies for social change.

Click here for course syllabus.

0101	Monica Kearney MW 10:00am - 10:50am Class time/details on ELMs	Seats (Total: 150) ESJ 0224 ONLINE

PSYC355 Developmental Psychology

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Prerequisite: PSYC100.

Survey of research and theory of psychological development from conception through childhood, stressing physiological, conceptual and behavioral changes, and the social and biological context in which individuals develop.

Restricted to PSYC (major code 20010) students only.

0101	Tracy Riggins TuTh 11:00am - 12:15pm	Seats (Total: 153) ESJ 1224

PSYC361 **Survey of Industrial and Organizational Psychology**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Prerequisite: PSYC100.

A general survey of the field of industrial organizational psychology including such topics as organizational entry (recruitment, selection, training, socialization); organizational psychology (motivation, leadership, job attitudes); and productivity in the work place (performance appraisal, absenteeism, turnover). The role that the larger environment plays in influencing work behaviors and work attitudes.

Restricted to PSYC (major code 20010/2001S) students only.

0101	Sara Barth	Seats (Total: 75)
	TuTh 9:30am - 10:45am	IRB 0318

PSYC362 **Introduction to Negotiation**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Restriction: Must be in Psychology program. Additional information: Restricted to PSYC majors during preregistration.

Overview of the field of negotiation and the social-psychological and contextual factors that facilitate and inhibit successful negotiation agreements. Students will engage in a variety of negotiation exercises individually and as a team.

0101	Michele Gelfand	Seats (Total: 23)
	Tu 3:00pm - 5:30pm	BPS 1232

PSYC389 **Experiential Learning**

(Perm req)

Credits: 1-6 Grading Method: Regular, Pass-Fail, Audit

Internship in psychology-related fields.

0101	Steven Young	Seats (Total: 20)
	Class time/details on ELMs	ONLINE

PSYC401 **Biological Bases of Behavior Laboratory**

(Perm req)

Credits: 4

Grading Method: Regular, Pass-Fail, Audit

Prerequisite: PSYC300; and (PSYC301 or BSCI353). Restriction: Permission of instructor; and must be in Psychology program; and must have earned a minimum of 85 credits.

Students will study some of the key concepts in neuroscience by combining behavioral experiments with electrode recording from neurons controlling the behaviors. We will intensively examine concepts like creation of rhythmic behaviors (walking, flight), neurotransmitters control of aggression, drug affects on synaptic activity, high-speed neural circuits for effective escape from predators, and CNS maps in the visual system for directing prey capture. Students will learn microsurgery and a broad range of neural recording techniques. We work with animals (invertebrates, cold-blooded vertebrates) every week. A strong biology background will be beneficial.

0101	David Yager MW 9:00am - 9:50am M 1:00pm - 5:00pm	Seats (Total: 8) BPS 0140 BPS 0263	 Lab
0301	David Yager MW 9:00am - 9:50am W 1:00pm - 5:00pm	Seats (Total: 8) BPS 0140 BPS 0263	 Lab

PSYC404 **Introduction to Behavioral Pharmacology**

Credits: 3

Grading Method: Regular, Pass-Fail, Audit

Prerequisite: PSYC301. Restriction: Must be in Psychology program.

Theoretical viewpoints on the interaction of drugs and behavior. Basic principles of pharmacology, the effects of drugs on various behaviors, experimental analysis of drug dependence and abuse, and neuropharmacology and behavior.

Contact department for information to register for this course.

PSYC406 **Neuroethology**

Credits: 3

Grading Method: Regular, Pass-Fail, Audit

Prerequisite: PSYC301. Restriction: Must be in Psychology program.

A merger between the disciplines of neuroscience and ethology (animal behavior) studies the behavioral functions of nervous systems using a comparative and evolutionary approach. Students will learn how the nervous system controls behavioral patterns in a variety of different organisms ranging from insects to mammals.

Restricted to PSYC (major code 20010/2001S) students only.

0101	Jens Herberholz TuTh 2:00pm - 3:15pm	Seats (Total: 40) BPS 1236	

PSYC409 **Topics in Neurosciences Seminar**

(Perm req)

Credits: 1 Grading Method: Regular, Pass-Fail

Current research in neurosciences will be presented, read, and discussed. Emphasis will change each term.

0101	Amanda Chicoli W 2:00pm - 3:50pm	Seats (Total: 38) BPS 1238	

PSYC420 **Experimental Psychology: Social Psychology Laboratory**

Credits: 4 Grading Method: Regular, Pass-Fail, Audit

Prerequisite: PSYC300 and PSYC221. Restriction: Must be in Psychology program; and must have earned a minimum of 85 credits.

A laboratory course to provide a basic understanding of experimental method in social psychology and experience in conducting research on social processes.

Restricted to PSYC (major code 20010/2001S) students only.

Click here for course syllabus.

0101	Edward Lemay MW 11:00am - 11:50am Th 10:00am - 11:50am	Seats (Total: 13) BPS 1236 BPS 0140	 Lab
0102	Edward Lemay MW 11:00am - 11:50am Th 12:00pm - 1:50pm	Seats (Total: 12) BPS 1236 BPS 0140	 Lab
0201	Edward Lemay MW 10:00am - 10:50am F 10:00am - 11:50am	Seats (Total: 13) BPS 0283 BPS 0140	 Lab
0202	Edward Lemay MW 10:00am - 10:50am F 12:00pm - 1:50pm	Seats (Total: 12) BPS 0283 BPS 0140	 Lab

PSYC424 **Communication and Persuasion**

Credits: 3 | Grading Method: Regular, Pass-Fail, Audit | General Education: DSSP

Prerequisite: PSYC221 and PSYC200.

Effect of social communication upon behavior and attitudes. Theory and research concerning attitude change and social influence.

SG91	Edward Pallas	Seats (Total: 40)
	W 2:00pm - 4:30pm	Location: TBA
	Registration is restricted to Biological Sciences- Shady Grove majors. Permission is required for all other students to enroll in courses at Shady Grove. Please email usgbiosci@umd.edu for permission.	

PSYC425 **Psychology and Law**

Credits: 3 | Grading Method: Regular, Pass-Fail, Audit

Prerequisite: PSYC100, PSYC200, and PSYC300. Restriction: Must be in Psychology program. Credit only granted for: PSYC309K, PSYC325, or PSYC425. Formerly: PSYC309K.

An introduction to the intersection of psychology and the criminal justice sytem, known as the field of legal psychology. The material covered will span the course of the criminal justice process and examine each aspect from a psychological perspective beginning with profiling and moving on to eyewitness memory and judgements through perpetrator memories and interrogation techniques. These apsects will be evaluated with a research lens as well as an applied outlook.

0101	Tracy Tomlinson	Seats (Total: 30)
	TuTh 12:30pm - 1:45pm	BPS 1232

PSYC432 **Counseling Psychology: Theories, Research, and Practice**

Credits: 3 | Grading Method: Regular, Pass-Fail, Audit

Prerequisite: PSYC200.

Analysis of research and intervention strategies developed and used by counseling psychologists. Historical and current trends in content and methodology.

Restricted to PSYC (major code 20010) students only.

0101	Nazish Salahuddin MW 10:00am - 10:50am Class time/details on ELMs	Seats (Total: 75) ESJ 1215 ONLINE	

PSYC433 **Basic Helping Skills: Research and Practice**

Credits: 4 Grading Method: Regular, Pass-Fail

Prerequisite: PSYC300. Restriction: Must be in Psychology program; and must have earned a minimum of 85 credits; and must not have completed or be concurrently enrolled in EDCP 310. Credit only granted for: EDCP210, EDCP310, or PSYC433.

Theories and research regarding effective helping relationships, with a focus on applications to counseling and psychotherapy. Students will practice helping skills with each other and will conduct research projects evaluating their helping skills. Students should be willing to talk about personal issues in class. Attendance in labs is mandatory and contributes to the course grade; thus, students should only enroll in a lab section that they will be able to attend consistently.

Restricted to PSYC (major code 20010/2001S) students only.

Click here for course syllabus.

0101	Jonathan Mohr M 2:00pm - 3:50pm W 9:00am - 10:50am	Seats (Total: 12) JMP 3201 BPS 1228	 Lab
0102	Jonathan Mohr M 2:00pm - 3:50pm W 11:00am - 12:50pm	Seats (Total: 12) JMP 3201 BPS 1228	 Lab
0103	Jonathan Mohr M 2:00pm - 3:50pm W 1:00pm - 2:50pm	Seats (Total: 12) JMP 3201 BPS 1228	 Lab
0104	Jonathan Mohr M 2:00pm - 3:50pm W 3:00pm - 4:50pm	Seats (Total: 12) JMP 3201 BPS 1228	 Lab
0105	Jonathan Mohr M 2:00pm - 3:50pm W 11:00am - 12:50pm	Seats (Total: 12) JMP 3201 BPS 1234	 Lab

0106	Jonathan Mohr M 2:00pm - 3:50pm W 1:00pm - 2:50pm	Seats (Total: 12) JMP 3201 BPS 1234	 Lab
0107	Jonathan Mohr M 2:00pm - 3:50pm F 8:00am - 9:50am	Seats (Total: 12) JMP 3201 BPS 1232	 Lab
0108	Jonathan Mohr M 2:00pm - 3:50pm F 10:00am - 11:50am	Seats (Total: 12) JMP 3201 BPS 1234	 Lab
0109	Jonathan Mohr M 2:00pm - 3:50pm F 12:00pm - 1:50pm	Seats (Total: 12) JMP 3201 BPS 1234	 Lab

PSYC435 **Theories of Personality and Psychotherapy**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Prerequisite: PSYC200.

Major theories of personality and research methods and findings relevant to those theories.

Contact department for information to register for this course.

PSYC436 **Introduction to Clinical Psychology: From Science to Practice**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Prerequisite: PSYC300.

Critical analysis of clinical psychology, with particular emphasis on current developments and trends.

Restricted to PSYC (major code 20010/2001S) students only.

Click here for course syllabus.

0101	Mary Byrne TuTh 2:00pm - 3:15pm	Seats (Total: 110) BPS 1243

PSYC437 **The Assessment and Treatment of Addictive Behaviors**

Credits: 3

Grading Method: Regular, Pass-Fail, Audit

Prerequisite: PSYC100; and 9 credits in PSYC courses. Credit only granted for: PSYC309E (taken in the Winter Term) or PSCY437. Formerly: PSYC309E.

Explores the current research in assessment and treatment of addictive behaviors. Topics may include addictions in the areas of alcohol, drugs, nicotine, gambling, and eating.

0101	Christopher Seitz-Brown MW 5:00pm - 6:15pm	Seats (Total: 50) HJP 2242
	Restricted to PSYC (major code 20010/2001S) students only.	
SG91	Heidi Bresee Th 9:30am - 12:00pm	Seats (Total: 20) BLD2 3022
	Restricted to CCJS (22091) students at Shady Grove only.	
SG92	Heidi Bresee Th 9:30am - 12:00pm	Seats (Total: 20) BLD2 3022
	Restricted to Bio Sci (0404E) students at Shady Grove only.	

PSYC442 **Psychology of Language**

Credits: 3

Grading Method: Regular, Pass-Fail, Audit

Prerequisite: PSYC300 and PSYC341. Restriction: Must be in Psychology program.

Introductory survey of the psychology of language, focusing on the cognitive processes that enable us to produce and understand language. Topics include speech perception, speech production, syntactic processing, language development, language disorders, and the brain bases of language.

Restricted to PSYC (major code 20010) students only.

Contact department for information to register for this course.

PSYC468H **Field Experience and Special Assignments in Honors**

(Perm req)

Credits: 1-3

Grading Method: Regular, Pass-Fail, Audit

An individual experience arranged by the honors student and his or her supervisor. A proposal submitted to the honors faculty in the semester preceding registration for the course should state the activities anticipated and the method of evaluation.

0101	Michael Dougherty Th 4:00pm - 4:50pm	Seats (Total: 20) BPS 1140A

PSYC469H **Honors Thesis Proposal Preparation**

(Perm req)

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Development of honors thesis proposal by preliminary research and literature review. Presentation of formal proposal to the thesis committee.

Restricted to undergraduate PSYC majors only.

Contact department for information to register for this course.

PSYC478 **Independent Study in Psychology**

(Perm req)

Credits: 1-3 Grading Method: Regular, Pass-Fail, Audit

Information about independent study may be obtained in BPS 1121. Restricted to PSYC majors (20010) only. The student must have completed 9 hours in PSYC with at least a 3.0 GPA in PSYC and a 2.8 overall GPA.

Contact department for information to register for this course.

PSYC479 **Special Research Problems in Psychology**

(Perm req)

Credits: 1-3 Grading Method: Regular, Pass-Fail, Audit

Information about research credit may be obtained in BPS 1121. Restricted to PSYC majors (20010) only. The student must have completed 9 hours in PSYC with at least a 3.0 GPA in PSYC and a 2.8 overall GPA.

Contact department for information to register for this course.

PSYC489B **Advanced Special Topics in Psychology; The Psychology of Adolescents' Close Relationships: Parents, Peers, and Romantic Partners**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Treatment of a specialized topic in psychology.

Prerequisite: PSYC355 or equivalent, or permission of instructor. This course examines the development of close relationships during adolescence, including those with parents, peers, and romantic partners. We examine core developmental themes including nature and nurture, stability and change, and individual differences, and discuss theory, research, and clinical applications.

0101	Jude Cassidy	Seats (Total: 75)
	TuTh 11:00am - 12:15pm	BPS 1243

PSYC489C **Advanced Special Topics in Psychology; Early Social Cognition**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Treatment of a specialized topic in psychology.

Prerequisites: PSYC300 and PSYC355; or permission of the instructor.

0101	Jonathan Beier	Seats (Total: 20)	
	TuTh 12:30pm - 1:45pm	ATL 1114	

PSYC489E **Advanced Special Topics in Psychology; Diversity in Organizations**

(Perm req)

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Treatment of a specialized topic in psychology.

Prerequisites: PSYC100; and PSYC221 or PSYC221H.

0101	Jennifer Wessel, Nikita Arun	Seats (Total: 20)	
	TuTh 9:30am - 10:45am	BPS 1228	

PSYC489P **Advanced Special Topics in Psychology; Scientific Ethics and Integrity**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Treatment of a specialized topic in psychology.

0101	Amanda Chicoli	Seats (Total: 24)	
	MW 4:00pm - 4:50pm Class time/details on ELMs	BPS 0140 ONLINE	Discussion

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PSYC489R **Advanced Special Topics in Psychology; Human and Animal Intelligence**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Treatment of a specialized topic in psychology.

Prerequisites: PSYC300 or permission of the instructor.

0101	Amanda Chicoli	Seats (Total: 50)	
	MW 1:00pm - 1:50pm Class time/details on ELMs	ESJ 1215 ONLINE	Discussion

PSYC489T **Advanced Special Topics in Psychology; The Psychology of Terrorism**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Treatment of a specialized topic in psychology.

Prerequisite: PSYC300. This seminar will cover classic and contemporary approaches to the psychology of terrorism. We will discuss theories of radicalization and deradicalization, as well as empirical data on the motivational, cultural and social aspects of becoming a violent extremist.

0101	A Kruglanski	Seats (Total: 20)
	W 3:00pm - 5:30pm	BPS 1232

PSYC489U **Advanced Special Topics in Psychology; Health Psychology**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Treatment of a specialized topic in psychology.

An examination of how psychological, biological, and social factors impact physical health and well-being. Topics covered include stress, health disparities, disease states, pain, addiction, and primary prevention.

0104	Kristen Hamilton	Seats (Total: 75)
	MWF 1:00pm - 1:50pm	TWS 1310

PSYC499H **Honors Thesis Research**

(Perm req)

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

In addition to the department and instructor, the director of the honors program may be contacted to obtain a section number. Prerequisite: permission of the thesis advisor. Permission may be obtained in BPS 1147. Restricted to undergraduate PSYC majors only.

Contact department for information to register for this course.

PSYC602 **Quantitative Methods II**

(Perm req)

Credits: 4 Grading Method: Regular, Audit, Sat-Fail

Prerequisite: PSYC601.

A continuation of PSYC 601. Topics include experimental design, analysis of variance, analysis of covariance, multiple regression, and general linear models.

For all non-psychology graduate students, written permission of the instructor is required.

0101	Alison Robey	Seats (Total: 20)	
	TuTh 9:00am - 11:00am	BPS 1232	
	Th 5:00pm - 7:00pm	BPS 0140	Lab

PSYC603 **Introduction to Industrial and Organizational Psychology**

Credits: 3 Grading Method: Regular, Audit, Sat-Fail

Credit only granted for: PSYC603 or PSYC730. Formerly: PSYC730.

Advanced survey of industrial-organizational psychology, including selection, training, motivation, group processes, leadership, organizational psychology, and organizational theory. Readings stressed and seminar time will be used for lectures, discussion and integration of the reading materials.

PYP1	Kenneth Yusko	Seats (Total: 40)	
	Meets February 27, 2020 - May 20, 2020		
	M 5:00pm - 9:00pm	ESJ 1309	
	Class time/details on ELMs	ONLINE	
	Restricted to students in the Industrial/Organizational Psychology program.		

PSYC604 **Fundamentals of Social Psychology**

Credits: 3 Grading Method: Regular, Audit, Sat-Fail

Credit only granted for: PSYC604 or PSYC640. Formerly: PSYC640.

A survey of classic and contemporary theories, research and methods in social psychology.

0101	A Kruglanski	Seats (Total: 20)
	M 1:00pm - 3:30pm	HBK 0125

PSYC611 **Advanced Developmental Psychology**

Credits: 3 Grading Method: Regular, Audit, Sat-Fail

Systematic exploration of contemporary and classic theories of development focusing on the assumptions they make and research they generate.

0101	Elizabeth Redcay	Seats (Total: 20)
	W 9:30am - 12:00pm	BPS 1232

PSYC622 **Research Methods in Clinical Psychology**

(Perm req)

Credits: 3

Grading Method: Regular, Sat-Fail

Restriction: Permission of instructor. Credit only granted for: PSYC622 or PSYC718. Formerly: PSYC718.

Examines issues and strategies in conceptual systems, designs and methodologies of current research in clinical and community psychology. Readings include critical analyses of published research. Course requirements include preparation of a research proposal for a thesis level study.

0101	Christopher Seitz-Brown	Seats (Total: 40)
	W 1:00pm - 3:30pm	BPS 1103

PSYC623 **Child Psychopathology**

Credits: 3

Grading Method: Regular, Sat-Fail

Restriction: Permission of instructor; and must be in one of the following programs (Psychology (Master's); Psychology (Doctoral)).

Examines the scientific and clinical literature relevant to normal and pathological behavior in children and adolescents. Issues in developmental psychopathology and consideration of processes initiated in childhood which manifest as pathology in adulthood are also considered.

PCC1	Nicole Lorenzo	Seats (Total: 40)
	Meets February 27, 2020 - May 20, 2020	
	Th 6:00pm - 9:25pm	BPS 1140B
	Restricted to students in Clinical Psychological Science program.	

PSYC625 **Clinical Assessment: Psychometric Principles, Testing and Behavior**

(Perm req)

Credits: 3

Grading Method: Regular, Sat-Fail

Restriction: Permission of BSOS-Psychology department. Credit only granted for: PSYC625 or PSYC721. Formerly: PSYC721.

An examination of fundamental principles of psychological assessment; application of these principles to the development of evidence-based assessments of clinical conditions and associated behaviors; and application of evidence-based assessments to the evaluation and understanding of clinical conditions evaluated and treated in therapeutic settings.

0101	Andres De Los Reyes	Seats (Total: 10)
	W 9:00am - 11:30am	BPS 1238

PSYC629B **Clinical Laboratory; ASSESSMENT PRACTICUM**

Credits: 1-3 Grading Method: Sat-Fail

Provides advanced supervised experience in the delivery and supervision of mental health interventions targeted to individuals. Supervised work with clients is required.

0101	Beth Warner	Seats (Total: 10)
	Contact instructor or department for details.	

PSYC629D **Clinical Laboratory; Child & Adolescent Therapy**

Credits: 1-3 Grading Method: Sat-Fail

Provides advanced supervised experience in the delivery and supervision of mental health interventions targeted to individuals. Supervised work with clients is required.

0101	Elizabeth Malesa	Seats (Total: 10)
	Contact instructor or department for details.	

PSYC629E **Clinical Laboratory; Diversity Training Therapy Practicum**

Credits: 1-3 Grading Method: Sat-Fail

Provides advanced supervised experience in the delivery and supervision of mental health interventions targeted to individuals. Supervised work with clients is required.

0101	Christopher Seitz-Brown	Seats (Total: 10)
	Contact instructor or department for details.	

PSYC630 **Behavioral and Cognitive Behavioral Intervention for Adults**

Credits: 3 Grading Method: Regular, Audit, Sat-Fail

Prerequisite: PSYC680. Restriction: Permission of instructor. Credit only granted for: PSYC630 or PSYC728. Formerly: PSYC728.

Introduces students to the process of therapy with particular focus on behavioral focus on behavioral and cognitive behavioral internentions. Syllabus focuses on theory, research, client diversity, ehtics, and practical aspects of conducting therapy.

Click here for more course information.

PCC1	Andrea Chisolm	Seats (Total: 40)
	Meets February 27, 2020 - May 20, 2020	
	Tu 6:00pm - 9:00pm	BPS 1140B
	Restricted to students in the MPS in Clinical Psychological Science Program.	

PSYC632 **Behavioral and Cognitive Behavioral Intervention for Children and Adolescents**

(Perm req)

Credits: 3 Grading Method: Regular, Audit, Sat-Fail

Restriction: Permission of instructor; and must be in one of the following programs (Psychology (Master's); Psychology (Doctoral)). Formerly: PSYC789A.

Introduces students to the process of therapy with particular focus on behavioral and cognitive behavioral interventions in children and adolescents. Syllabus focuses on theory, research, client diversity, ethics and practical aspects of conducting therapy.

0101	Andrea Chronis-Tuscano	Seats (Total: 20)
	Tu 10:00am - 12:50pm	BPS 1103

PSYC638 **Externship in Professional Psychology; Externship in Professional Psychology**

Credits: 1-3 Grading Method: Sat-Fail

Approved appointment as an extern in a mental health setting.

For PSYC majors only.

0101	Lea Dougherty	Seats (Total: 25)
	Contact instructor or department for details.	
0201	Jonathan Mohr	Seats (Total: 25)
	Contact instructor or department for details.	

PSYC639 **Internship in Professional Psychology; Internship in Professional Psychology**

Credits: 1 Grading Method: Sat-Fail

This seminar combines involvement with a program approved appointment as an intern in a mental setting with a supervisory review of the training experience.

For PSYC majors only.

0101	Lea Dougherty	Seats (Total: 20)
	Contact instructor or department for details.	

PSYC652 **Analytical Thinking: Statistical Methods at Work**

Credits: 3

Grading Method: Regular,
Audit, Sat-Fail

Additional information: Students will be taught how to conduct analyses in R, SPSS, SAS, Stata, and excel; students are encouraged to practice analyses on at least two of these programs.

Personal and organizational growth begins with asking and answering great questions. Correspondingly, this course begins with demonstrations of how to translate business questions into research questions. Statistical methods used to answer business questions are taught first conceptually, then computationally using statistical software. This course emphasizes interpreting results, the regression model, and other issues salient to business research, such as handling large datasets. Students will be provided with a simulated dataset that they will use in learning how to frame and answer business questions using the techniques covered in this course. At the conclusion of this course, students will be required to provide an executive-level presentation on the business question, their findings, and resulting implications.

PYP1	Juliet Aiken	Seats (Total: 40)	
	Meets February 27, 2020 - May 20, 2020		
	M 5:00pm - 9:00pm Class time/details on ELMs	ESJ 1309 ONLINE	
	Restricted to students in the Industrial/Organizational Psychology program.		

PSYC654 **Advanced Analytical Thinking: Statistical Methods at Work II**

Credits: 3

Grading Method: Regular,
Audit, Sat-Fail

Prerequisite: PSYC652 and PSYC653. Restriction: Must be in the Master of Professional Studies in Industrial/Organizational Psychology Program.

Students will delve deeply into issues of interpreting and questioning analytic results. Students will learn how to creatively present empirical results in ways that grab the attention of, and are clear to, a variety of stakeholders. Students will present group projects in two presentations, one to the rest of the class (technical audience) and one to an expert panel of practitioners. Finally, this course will introduce students conceptually to a number of advanced statistical methods, such as meta-analysis and structural equation modeling.

PYP1	Meg O'Neill	Seats (Total: 40)	
	Meets February 27, 2020 - May 20, 2020		
	M 4:30pm - 8:30pm Class time/details on ELMs	BPS 1140B ONLINE	 Discussion
	Restricted to students in the MPS Industrial/Organizational Psychology program.		

PSYC655 **Talent Development**

Credits: 3 | Grading Method: Regular, Audit, Sat-Fail

Restriction: Must be in the Master of Professional Studies in Industrial/Organizational Psychology Program.

In this course, students will learn how to design and implement effective employee training programs as well as how to encourage informal learning in organizations. This course will review current theories in adult learning (e.g., ADDIE model, action learning, peer feedback/coaching), several popular assessment tools (e.g., MBTI), and best practices for evaluating training programs. Issues relevant to leadership identification and development, including succession planning, will also be covered. As part of this course, students will work in teams to design and deliver a brief training module and practice giving and receiving feedback. Additionally, students will complete, and facilitate a debriefing on, a 360-degree feedback assessment.

PYP1	Shannel Winslow, Colin Cooper	Seats (Total: 40)	
	Meets February 27, 2020 - May 20, 2020		
	M 4:30pm - 8:30pm	BPS 1140B	
	Class time/details on ELMs	ONLINE	Discussion
	Restricted to students in the MPS Industrial/Organizational Psychology program.		

PSYC691 **Research in Counseling Psychology II**

(Perm req)

Credits: 3 | Grading Method: Regular, Sat-Fail

Restriction: Permission of instructor. Credit only granted for: PSYC691 or PSYC718. Formerly: PSYC718.

Critical analysis of trends and issues in counseling psychology science.

0101	Clara Hill	Seats (Total: 10)
	Tu 10:00am - 1:00pm	BPS 2145

PSYC737 **Research Methods in Industrial/Organizational Psychology**

Credits: 3 | Grading Method: Regular, Audit, Sat-Fail

Prerequisite: PSYC603; or permission of instructor.

Philosophy, theory, and method issues underlying I/O psychology. History and the effectiveness of different methods for answering different questions is explored. Reliability and validity are emphasized.

0101	James Grand Th 2:00pm - 4:30pm	Seats (Total: 20) BPS 1103

PSYC789 **Special Research Problems; Special Research Problem**

Credits: 1-4 Grading Method: Regular, Audit, Sat-Fail

0101	Edward Bernat Contact instructor or department for details.	Seats (Total: 20)
0102	Jack Blanchard Contact instructor or department for details.	Seats (Total: 20)
0103	Andrea Chronis-Tuscano Contact instructor or department for details.	Seats (Total: 20)
0104	Andres De Los Reyes Contact instructor or department for details.	Seats (Total: 20)
0105	Lea Dougherty Contact instructor or department for details.	Seats (Total: 20)
0106	Jessica Magidson Contact instructor or department for details.	Seats (Total: 20)
0107	Alexander Shackman Contact instructor or department for details.	Seats (Total: 20)
0201	Anna Li Contact instructor or department for details.	Seats (Total: 20)
0202	Alec Solway Contact instructor or department for details.	Seats (Total: 20)
0203	Michael Dougherty Contact instructor or department for details.	Seats (Total: 20)
0204	Erica Glasper Andrews Contact instructor or department for details.	Seats (Total: 20)
0205	Jens Herberholz Contact instructor or department for details.	Seats (Total: 20)

0206	Luiz Pessoa Contact instructor or department for details.	Seats (Total: 20)
0207	Matthew Roesch Contact instructor or department for details.	Seats (Total: 20)
0208	Robert Slevc Contact instructor or department for details.	Seats (Total: 20)
0209	David Yager Contact instructor or department for details.	Seats (Total: 20)
0301	Clara Hill Contact instructor or department for details.	Seats (Total: 20)
0302	Derek Iwamoto Contact instructor or department for details.	Seats (Total: 20)
0303	Jonathan Mohr Contact instructor or department for details.	Seats (Total: 20)
0304	Karen O'Brien Contact instructor or department for details.	Seats (Total: 20)
0401	Jonathan Beier Contact instructor or department for details.	Seats (Total: 20)
0402	Jude Cassidy Contact instructor or department for details.	Seats (Total: 20)
0403	Elizabeth Redcay Contact instructor or department for details.	Seats (Total: 20)
0404	Tracy Riggins Contact instructor or department for details.	Seats (Total: 20)
0501	Michele Gelfand Contact instructor or department for details.	Seats (Total: 20)
0502	James Grand Contact instructor or department for details.	Seats (Total: 20)
0503	Paul Hanges Contact instructor or department for details.	Seats (Total: 20)

0504	A Kruglanski Contact instructor or department for details.	Seats (Total: 20)
0505	Edward Lemay Contact instructor or department for details.	Seats (Total: 20)
0506	Instructor: TBA Contact instructor or department for details.	Seats (Total: 20)
0507	Instructor: TBA Contact instructor or department for details.	Seats (Total: 20)
0508	Jennifer Wessel Contact instructor or department for details.	Seats (Total: 20)

PSYC799 **Master's Thesis Research; MASTERS THESIS RSRCH**

Credits: 1-6 Grading Method: Sat-Fail

For PSYC majors only. For all non-psychology graduate students, written permission of the instructor and department is required.

Contact department for information to register for this course.

PSYC888A **Research Methods in Psychology; Developmental Seminar**

Credits: 1-3 Grading Method: Regular, Audit, Sat-Fail

0101	Tracy Riggins M 1:00pm - 2:30pm	Seats (Total: 10) BPS 1103

PSYC889 **Research Methods in Psychology; Cognitive and Neural Systems Seminar**

Credits: 1-3 Grading Method: Regular, Audit, Sat-Fail

0101	Anna Li Tu 2:00pm - 2:50pm	Seats (Total: 10) Location: TBA

PSYC898 **Pre-Candidacy Research**

Credits: 1-8 Grading Method: Regular, Sat-Fail

Contact department for information to register for this course.

PSYC899 **Doctoral Dissertation Research; Doctoral Dissertation Research**

(Perm req)

Credits: 6 Grading Method: Sat-Fail

For PSYC majors only. For all non-psychology graduate students, written permission of the instructor and department is required.

Contact department for information to register for this course.

RDEV Real Estate Development Spring 2020

RDEV250 **People, Planet, and Profit: Building Sustainable Places**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit General Education: DSSP

Cross-listed with ARCH271. Credit only granted for: ARCH271 or RDEV250.

An introduction to the four disciplines represented in the School: architecture and urban design, community planning, historic preservation, and real estate development, that work to create a more sustainable environment for the future to create a more sustainable environment for the future using our interpretation of the quadruple bottom line: socio-cultural, economic, environmental, and design sustainability. Students will be provided with an understanding of the fundamental scholarship and processes of each of these disciplines and examine the intersections between them. Additionally, they will learn by applying the approaches of the four disciplines through a series of field studies.

0101	Wayne Curtis TuTh 11:00am - 12:15pm	Seats (Total: 85) TWS 0310

RDEV350 **Real Estate Development: Introduction to Principles, Process, and Practice**

(Perm req)

Credits: 3 Grading Method: Regular, Pass-Fail

Prerequisite: RDEV250 or ARCH271. Restriction: Must be enrolled in the RDEV Minor; and permission of ARCH-School of Architecture, Planning, & Preservation. Credit only granted for: RDEV150 or RDEV350. Formerly: RDEV150.

An introduction to the basic principles of real estate development: How real estate and communities get built and how value is created. The emphasis is on entrepreneurship and an experiential learning approach to the entrepreneurial real estate development process, principles, and practice.

0101	Thomas Kaufman Th 7:00pm - 9:40pm	Seats (Total: 16) ARC 1123
0102	Marcus Ervin Th 7:00pm - 9:40pm	Seats (Total: 25) ARC 1103

RDEV450 **Foundations of Real Estate Finance and Investment**

(Perm req)

Credits: 3

Grading Method: Regular, Pass-Fail

Prerequisite: Must have completed RDEV270 or an approved accounting course with a grade of C- or better; and minimum grade of C- in RDEV350. Restriction: Must be enrolled in RDEV Minor; and permission of ARCH-School of Architecture, Planning, & Preservation.

Real Estate Finance and Investment addresses how real estate value is established, the fundamental foundations of the time value of money, as well as more real estate specific applications of return on investment, net operating income, the components of a real estate sources and uses statement, sources of real estate equity and debt financing, commonly used debt ratios and equity returns in real estate, as well as concepts of sensitivity analysis and exit strategies.

0101	Kathryn Corby Tu 7:00pm - 9:40pm	Seats (Total: 25) ARC 1105
0102	Thomas Dwyer Tu 7:00pm - 9:40pm	Seats (Total: 20) ARC 1103

RDEV600 **Principles and Practice of Real Property Development**

(Perm req)

Credits: 3

Grading Method: Regular, Sat-Fail

Restriction: Permission of ARCH-Real Estate Development. Credit only granted for: RDEV688T or RDEV600. Formerly: RDEV688T.

An introduction to basic principles of real estate development: How real estate and communities get built and how value is created. The emphasis is on entrepreneurship and an experiential learning approach to the entrepreneurial real estate development process, principles, and practice.

0101	Thomas Kaufman Th 7:00pm - 9:40pm	Seats (Total: 15) ARC 1125

RDEV603 **Introduction to Real Property Finance**

(Perm req)

Credits: 3

Grading Method: Regular, Sat-Fail

Restriction: Permission of the Department. Credit only granted for: RDEV688Z, RDEV689V, or RDEV603. Formerly: RDEV688Z and RDEV689V.

Introduction to Real Property Finance addresses how real estate value is established, the fundamental foundations of the time value of money, as well as more real estate specific applications of return on investment, net operating income, the components of a real estate sources and uses statement, sources of real estate equity and debt financing, commonly used debt ratios and equity returns in real estate, as well as concepts of sensitivity analysis and exit strategies.

0101	Thomas Dwyer	Seats (Total: 12)
	Tu 7:00pm - 9:40pm	ARC 1103

RDEV610 **Real Property Development Law and Ethics**

(Perm req)

Credits: 3 Grading Method: Regular, Sat-Fail

Restriction: Permission of ARCH-Real Estate Development. Credit only granted for: RDEV688A or RDEV610. Formerly: RDEV688A.

Presents foundational knowledge about real property, contracts, administrative and constitutional law, and ethical principals and reasoning skills.

0101	David Kalinski	Seats (Total: 30)
	M 7:00pm - 9:40pm	ARC 1105

RDEV615 **Principles, Process and Politics of Planning for Real Property Development**

(Perm req)

Credits: 3 Grading Method: Regular, Sat-Fail

Restriction: Permission of ARCH-Real Estate Development. Credit only granted for: RDEV688G or RDEV615. Formerly: RDEV688G.

Designed to introduce and familiarize students with planning and zoning and the associated processes and requirements that impact the real property development process and products. It will look at the roles the community and politics play in shaping the built environment and the development process.

0101	James Pratt	Seats (Total: 28)
	Th 7:00pm - 9:40pm	ARC 1101

RDEV630 **Real Property Finance and Investment**

(Perm req)

Credits: 3 Grading Method: Regular, Audit, Sat-Fail

Restriction: Permission of ARCH-Real Estate Development. Credit only granted for: RDEV630, RDEV688B, or URSP664. Formerly: RDEV688B.

This course is designed to introduce students who have experience in real estate finance or have taken an introductory course in real estate finance and investment to move to this intermediate course that addresses foundational concepts of commercial real estate finance and the measures used in analyzing and evaluating real estate projects. Quantitative analysis and financial modeling comprise the main focus.

0101	Seydina Fall	Seats (Total: 30)
	Tu 7:00pm - 9:40pm	ARC 1101

RDEV650 **Essentials of Design and Construction Management for Development Professionals**

(Perm req)

Credits: 3 Grading Method: Regular, Audit, Sat-Fail

Restriction: Must be in Real Estate Development (Master's) program; or permission of ARCH-Real Estate Development. Credit only granted for: RDEV650 or RDEV688C. Formerly: RDEV688C.

Essential terminology, process and substantative knowledge needed by development professionals to effectively move a project through the design and construction process; includes environmental and ethical considerations throughout the process.

0101	Matthew O'Malley	Seats (Total: 28)
	M 7:00pm - 9:40pm	ARC 1101

RDEV689D **Current Topics in Real Estate Development; Affordable Housing Asset Management**

(Perm req)

Credits: 3 Grading Method: Regular, Audit, Sat-Fail

Explores a focused aspect in any of the five major phases of real estate development: planning, finance, law, design, construction, or management.

0101	David Jefferson	Seats (Total: 15)
	W 7:00pm - 9:40pm	ARC 1101

RDEV689F **Current Topics in Real Estate Development; Advanced Real Estate Development Finance**

Credits: 3 Grading Method: Regular, Audit, Sat-Fail

Explores a focused aspect in any of the five major phases of real estate development: planning, finance, law, design, construction, or management.

0101	Kayrine Brown, Zachary Marks	Seats (Total: 15)
	Th 7:00pm - 9:40pm	ARC 1127

RDEV689I **Current Topics in Real Estate Development; Design and Development Competition**

(Perm req)

Credits: 3

Grading Method: Regular, Audit, Sat-Fail

Explores a focused aspect in any of the five major phases of real estate development: planning, finance, law, design, construction, or management.

Prerequisite: Permission of department.

0101	Ronald McDonald	Seats (Total: 14)
	M 7:00pm - 9:40pm	ASY 3221

RDEV689R **Current Topics in Real Estate Development; Retail Real Estate Development and Asset Management**

(Perm req)

Credits: 3

Grading Method: Regular, Audit, Sat-Fail

Explores a focused aspect in any of the five major phases of real estate development: planning, finance, law, design, construction, or management.

Prerequisite: Permission of department.

0101	Nick Egelanian	Seats (Total: 15)
	M 7:00pm - 9:40pm	Location: TBA

RDEV689Y **Current Topics in Real Estate Development; Guided Real Estate Development Project**

(Perm req)

Credits: 3

Grading Method: Regular, Audit, Sat-Fail

Explores a focused aspect in any of the five major phases of real estate development: planning, finance, law, design, construction, or management.

0101	Maria Day-Marshall	Seats (Total: 10)
	Contact instructor or department for details.	

RDEV690 **Capstone Project: Real Property Feasibility Study**

(Perm req)

Credits: 3

Grading Method: Regular, Sat-Fail

Prerequisite: Completion of at least 7 RDEV courses. Restriction: Permission of ARCH-Real Estate Development. Credit only granted for: RDEV688I or RDEV690. Formerly: RDEV688I.

The capstone course is designed to provide students with an opportunity to apply acquired classroom knowledge to real world conditions. Each student in the class will work separately to create a development proposal and feasibility study for an assigned property. For students doing a feasibility study of a development the study will address at least market analysis, entitlement process, construction, and financing for the project.

0101	Tanya Bansal Tu 7:00pm - 9:40pm	Seats (Total: 10) ARC 1125	
0102	Tanya Bansal Tu 7:00pm - 9:40pm	Seats (Total: 10) Location: TBA	
0103	Tanya Bansal Tu 7:00pm - 9:40pm	Seats (Total: 10) Location: TBA	
0104	Tanya Bansal Tu 7:00pm - 9:40pm	Seats (Total: 10) Location: TBA	
0105	Tanya Bansal Tu 7:00pm - 9:40pm	Seats (Total: 10) Location: TBA	

RELS Religious Studies Spring 2020

RELS170 **Greek and Roman Mythology**

Credits: 3 | Grading Method: Regular, Pass-Fail, Audit | CORE: HL | General Education: DSHU

Cross-listed with CLAS170. Credit only granted for: CLAS170 or RELS170. Additional information: This course cannot be taken for language credit.

An introduction to the mythology of ancient Greece and Rome. This course is particularly recommended for students planning to major in foreign languages, English, history, the fine arts, or journalism. Taught in English.

0101	Jorge Bravo MW 11:00am - 11:50am Th 9:30am - 10:20am	Seats (Total: 21) MMH 1400 HBK 1108	 Discussion
0102	Jorge Bravo MW 11:00am - 11:50am Th 11:00am - 11:50am	Seats (Total: 21) MMH 1400 HBK 1108	 Discussion

0103	Jorge Bravo MW 11:00am - 11:50am Th 12:30pm - 1:20pm	Seats (Total: 21) MMH 1400 HBK 1108	Discussion
0104	Jorge Bravo MW 11:00am - 11:50am Th 9:30am - 10:20am	Seats (Total: 21) MMH 1400 HBK 0123	Discussion
0105	Jorge Bravo MW 11:00am - 11:50am Th 11:00am - 11:50am	Seats (Total: 21) MMH 1400 HBK 0123	Discussion
0106	Jorge Bravo MW 11:00am - 11:50am Th 12:30pm - 1:20pm	Seats (Total: 21) MMH 1400 HBK 0123	Discussion
0107	Jorge Bravo MW 11:00am - 11:50am F 10:00am - 10:50am	Seats (Total: 21) MMH 1400 HBK 0123	Discussion
0108	Jorge Bravo MW 11:00am - 11:50am F 11:00am - 11:50am	Seats (Total: 21) MMH 1400 HBK 0123	Discussion
0109	Jorge Bravo MW 11:00am - 11:50am F 1:00pm - 1:50pm	Seats (Total: 21) MMH 1400 HBK 0123	Discussion
SA23	Lindsey Sitler Contact instructor or department for details.	Seats (Total: 0)	

RELS219A **Religions of the Ancient Near East**

Credits: 3 | Grading Method: Regular, Pass-Fail, Audit | General Education: DSHU

Cross-listed with: JWST225, HIST219I. Credit only granted for: JWST225, HIST219I, or RELS219A.

Introduction to ancient Near Eastern religious systems and mythology, from the third millennium BCE through the fourth century BCE. Particular emphasis on Mesopotamia and ancient Israel.

0101	Matthew Suriano TuTh 11:00am - 12:15pm	Seats (Total: 40) PLS 1119	

RELS219C **Inventing Traditions: The Making of Rabbinic Judaism**

Credits: 3 | Grading Method: Regular, Pass-Fail, Audit | General Education: DSHS, DSHU, SCIS

Cross-listed with: HIST281, JWST230. Credit only granted for: HIST281 or JWST230.

Introduces the dramatic literary and cultural (as well as political and demographic) innovations that reshaped Judaism in late antiquity. Examines the fundamental works and genres of rabbinic literature and the religious movement that produced them. Special emphasis on the rabbinic uses of "tradition" to enhance authority and legitimacy, and to foster group identity.

Cross-listed with HIST281 and JWST230. Credit granted for HIST281, JWST230, or RELS219C. Introduces the dramatic literary and cultural (as well as political and demographic) innovations that reshaped Judaism in late antiquity. Examines the fundamental works and genres of rabbinic literature and the religious movement that produced them. Special emphasis on the rabbinic uses of "tradition" to enhance authority and legitimacy, and to foster group identity.

0101	Hayim Lapin	Seats (Total: 20)	
	TuTh 9:30am - 10:20am Class time/details on ELMs	TLF 2108 ONLINE	Discussion

RELS219K **Special Topics in Religious Studies; Reformers, Radicals, and Revolutionaries:The Middle East in the Twentieth Century**

Credits: 3 | Grading Method: Regular, Pass-Fail, Audit

Special topics in Religious Studies

0101	Peter Wien TuTh 11:00am - 12:15pm	Seats (Total: 36) AJC 2119
SA23	Lindsey Sitler Contact instructor or department for details.	Seats (Total: 0)

RELS250 **Fundamental Concepts of Judaism**

Credits: 3 | Grading Method: Regular, Pass-Fail, Audit | CORE: HO | General Education: DSHU

Cross-listed with JWST250, PHIL234. Credit only granted for: JWST250, PHIL234, or RELS250.

A conceptional introduction to Judaism, analyzing its fundamental concepts from both analytical and historical perspectives. Discussion of "normative" Judaism as well as other conceptions of Judaism. Topics include: God, the Jewish people, authority, ethics, the sacred and the profane, particularism and universalism.

0101	Charles Manekin	Seats (Total: 20)
	TuTh 9:30am - 10:45am	SQH 1105

RELS269B **Special Topics in Study Abroad II; Buddhism and Culture**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Special topics course taken as part of an approved study abroad program.

Contact department for information to register for this course.

RELS269G **Special Topics in Study Abroad II; From Asoka to Gandhi: Buddhism and Hinduism in Contemporary Society**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Special topics course taken as part of an approved study abroad program.

Contact department for information to register for this course.

RELS269P **Special Topics in Study Abroad II**

Credits: 1-6 Grading Method: Regular, Pass-Fail, Audit

Special topics course taken as part of an approved study abroad program.

Contact department for information to register for this course.

RELS289C **Jews, Christians, and Muslims in Medieval Spain: Tolerance, Oppression, and the Problematic Past**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit General Education: DSHS, DVUP, SCIS

Cross-listed with: HIST289A. Credit only granted for: HIST289A or RELS289C.

For 800 years, medieval Spain was home to one of the most religiously diverse societies in European history. Despite frequent hostilities, the interactions of Spanish Jews, Christians, and Muslims produced a flowering of science, theology, and literature in an often remarkably tolerant climate. Students will learn how medieval Spanish people themselves experienced interreligious contact and conflict. They will also discover the modern pressures, prejudices, and ideals that have shaped historians interpretations of medieval Spain.

Cross-listed with HIST289A. Credit only granted for HIST289A or RELS289C.

0101	Janna Bianchini MW 11:00am - 11:50am M 12:00pm - 12:50pm	Seats (Total: 24) SYM 0200 KEY 0100	Discussion
0102	Janna Bianchini MW 11:00am - 11:50am W 9:00am - 9:50am	Seats (Total: 24) SYM 0200 KEY 0100	Discussion
0103	Janna Bianchini MW 11:00am - 11:50am W 12:00pm - 12:50pm	Seats (Total: 24) SYM 0200 KEY 0100	Discussion

RELS289I **What is Religion?**

Credits: 3 | Grading Method: Regular, Pass-Fail, Audit | CORE: HO, D | General Education: DSHU, DVCC, SCIS

Draws upon examples from a wide variety of religious traditions to explore the question of what religion is and how to best understand it. Engagement with diverse approaches to religion including phenomenology and the study of "the sacred"; sociology and the study of religious communities; and questions of religious experience, ritual, and identity formation.

0101	Maxine Grossman MW 11:00am - 11:50am W 4:00pm - 4:50pm	Seats (Total: 20) SQH 1120 SQH 1111	Discussion
0102	Maxine Grossman MW 11:00am - 11:50am F 10:00am - 10:50am	Seats (Total: 20) SQH 1120 SQH 4116	Discussion
0103	Maxine Grossman MW 11:00am - 11:50am F 11:00am - 11:50am	Seats (Total: 20) SQH 1120 SQH 4116	Discussion
0104	Maxine Grossman MW 11:00am - 11:50am F 1:00pm - 1:50pm	Seats (Total: 20) SQH 1120 SQH 4116	Discussion

RELS319G **Special Topics in Religious Studies; Cinema and Religion**

Credits: 3 | Grading Method: Regular, Pass-Fail, Audit

Special topics in the study of religious history, literature, culture, and thought.

Crosslisted with FILM359R. Credit only granted for RELS319G or FILM359R.

0101	Eric Zakim	Seats (Total: 30)
	TuTh 12:30pm - 1:45pm	ESJ B0322

RELS319N **Special Topics in Religious Studies; Introduction to American Indian Cultures of the U.S.**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Special topics in the study of religious history, literature, culture, and thought.

Cross-listed with AMST328N and ANTH468F. Credit granted for AMST328N, ANTH468F or RELS319N.

0101	Bayley Marquez	Seats (Total: 25)
	TuTh 2:00pm - 3:15pm	TWS 0134

RELS369C **Special Topics in Study Abroad III; Between Tolerance and Conflict**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Special topics course taken as part of an approved study abroad program.

Contact department for information to register for this course.

RELS369L **Special Topics in Study Abroad III; Society and Religion in Latin America**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Special topics course taken as part of an approved study abroad program.

Contact department for information to register for this course.

RELS369R **Special Topics in Study Abroad III; Christianity and the Roman Empire (100-425CE)**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Special topics course taken as part of an approved study abroad program.

Contact department for information to register for this course.

RELS369Z **Special Topics in Study Abroad III; All Roads Lead to Rome**

Credits: 3

Grading Method: Regular, Pass-Fail, Audit

Special topics course taken as part of an approved study abroad program.

Contact department for information to register for this course.

RELS419B **Advanced Topics in Religious Studies; Indigenous Thought in the Americas**

Credits: 3

Grading Method: Regular, Pass-Fail, Audit

The contemporary study of religion in which topics may address specific religious traditions, regional or historical developments, or methodological and theoretical issues.

Cross-listed with AMST498K. Credit only granted for: AMST498K or RELS419B. Relying exclusively upon indigenous authors, this course examines the philosophical-religious-intellectual views of the indigenous peoples of what Europeans call "the New World" -- and what indigenous peoples variously call "Abya Yala,""Anahuac," "Turtle Island," and "Mapu". We examine a variety of topics including: what it is like to be discovered, anthropologically studied, and scientifically objectified; genocide of native peoples; destruction and commodification of native cultures; internal colonialism; globalization; religion; philosophy; environmentalism; and the ethics of sports mascots. Authors will include Vine Deloria, Jr., Leroy Little Bear, V.F. Cordova, Huanani-Kay Trask, Evo Morales, Fausto Reinaga, George Tinker, Anne Waters, Kyle Powys Whyte, Brian Yazzie Burkhart, and Winona LaDuke (among others).

0101	James Maffie	Seats (Total: 25)
	TuTh 11:00am - 12:15pm	SQH 2120

RELS419C **Advanced Topics in Religious Studies; History and Memory in Medieval Islam**

Credits: 3

Grading Method: Regular, Pass-Fail, Audit

The contemporary study of religion in which topics may address specific religious traditions, regional or historical developments, or methodological and theoretical issues.

0101	Antoine Borrut	Seats (Total: 12)
	W 3:30pm - 6:00pm	TLF 2100

RELS419R **Advanced Topics in Religious Studies; Tradition and Change:Jewish Religion in the Modern World**

Credits: 3

Grading Method: Regular, Pass-Fail, Audit

General Education: DSHS, DSHU, DVUP

The contemporary study of religion in which topics may address specific religious traditions, regional or historical developments, or methodological and theoretical issues.

Cross-listed with JWST347 and HIST429X. Credit granted for JWST347, RELS419R, or HIST429X. An exploration of the history of the different modern Jewish religious movements that developed in Europe, starting with messianic movements and ending with Reform and Orthodoxy. Emphasis will be placed on the influence of the academic study of Judaism on the development of modern Jewish religious ideologies and practices.

0101	Rachel Manekin	Seats (Total: 40)
	TuTh 2:00pm - 3:15pm	SQH 1105

RELS499 **Independent Study in Religious Studies**

Credits: 1-3 Grading Method: Regular, Pass-Fail, Audit

An advanced independent research project for qualified students, supervised by a faculty member, on a topic not ordinarily covered in available courses.

Contact department for information to register for this course.

RUSS Russian Spring 2020

RUSS102 **Intensive Elementary Russian II**

Credits: 6 Grading Method: Regular, Pass-Fail, Audit

Prerequisite: RUSS101 or RUSS102; and must have appropriate Foreign Language Placement Test (FLPT) score. Restriction: Must not be a native/fluent speaker of Russian. Credit only granted for: RUSS102 or (RUSS113 and RUSS114).

A continuation of RUSS101 which will further develop the four skills: reading, writing, listening and speaking with an emphasis on communicative competence.

0101	Inna Hardman	Seats (Total: 15)
	MWF 10:00am - 10:50am	JMZ 0118
	TuTh 9:30am - 10:45am	JMZ 2122
0201	Inna Hardman	Seats (Total: 15)
	MWF 11:00am - 11:50am	JMZ 2122
	TuTh 11:00am - 12:15pm	JMZ 2122

RUSS202 **Intermediate Russian II**

Credits: 5 Grading Method: Regular, Pass-Fail, Audit CORE: HO

Prerequisite: RUSS201; or must have appropriate Foreign Language Placement Test (FLPT) score. Restriction: Must not be a native/fluent speaker of Russian.

Continued activation and expansion of skills and knowledge acquired in RUSS201 with the goal of communicative competence.

0101	Zhanna Gerus-Vernola	Seats (Total: 15)
	MWF 10:00am - 10:50am	JMZ 3205
	TuTh 10:00am - 10:50am	JMZ 3205

RUSS302 **Advanced Russian II**

Credits: 3 Grading Method: Regular, Pass-Fail

Prerequisite: RUSS301.

Advanced training in written Russian communicative structures.

0101	Anastasiia Selemeneva	Seats (Total: 15)
	TuTh 9:30am - 10:45am	JMZ 1226

RUSS386 **Experiential Learning**

(Perm req)

Credits: 3-6 Grading Method: Regular, Pass-Fail

Restriction: Junior standing or higher; and permission of ARHU-School of Languages, Literatures, and Cultures department.

Contact the department to obtain section numbers.

Contact department for information to register for this course.

RUSS398C **Selected Topics in Russian Language and Literature; Russian Practicum in Conversation with a Focus on Phonetics and Intonation**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

0101	Inna Hardman	Seats (Total: 15)
	MWF 2:00pm - 2:50pm	JMZ 0205

RUSS398D **Selected Topics in Russian Language and Literature; New Wave Cinemas of the Soviet Bloc**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Also offered as FILM359O.

0101	Elizabeth Papazian MW 12:00pm - 1:50pm	Seats (Total: 20) ESJ B0322

RUSS402 **Practicum in Written Russian**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Prerequisite: RUSS401; or students who have taken courses with comparable content may contact the department.

Designed to improve comprehension of functional varieties of written Russian and develop ability to present in written form concise syntheses of source texts.

0101	Anastasiia Selemeneva TuTh 11:00am - 12:15pm	Seats (Total: 15) JMZ 3122

RUSS439T **Selected Topics in Russian Literature; Russian Literature of the 19th Century in Russian: Tolstoy's Anna Karenina**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Presentation of a topic in Russian literature.

Prerequisite: RUSS302 or permission of department. Close reading and discussion of the novel in Russian.

0101	Elizabeth Papazian MW 2:00pm - 3:15pm	Seats (Total: 15) ESJ B0322

RUSS499 **Independent Study in Russian**

(Perm req)

Credits: 1-3 Grading Method: Regular, Pass-Fail

Independent study under faculty supervision.

Contact department for information to register for this course.

RUSS798 **Independent Study**

Credits: 1-3 Grading Method: Regular, Audit, Sat-Fail

Contact department for information to register for this course.

RUSS799 **Thesis Research**

Credits: 1-6 Grading Method: Sat-Fail

Contact department for information to register for this course.

SLAA Second Language Acquisition and Application Spring 2020

SLAA410 **Second Language Acquisition: Theory, Research, and Practice**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit General Education: DSSP

Prerequisite: LING200, LING240, PSYC200, PSYC221, or PSYC354.

Introduces vibrant and expanding branch of language science and cognitive science: theory, research and practice in SLA. Students apply what they learn to practical issues ranging from learning languages as an adult to societal problems involving second languages and dialects.

0101	Michael Long	Seats (Total: 15)
	MW 2:00pm - 3:15pm	JMZ 1122

SLAA620 **Second Language Research Methodologies**

Credits: 3 Grading Method: Regular, Audit, Sat-Fail

Prerequisite: SLAA610; and must have completed or be concurrently enrolled in SLAA611.

An exploration of research methodology in second language acquisition (SLA), with a focus on developing practical skills in data analysis and interpretation. Preparation in both critical evaluation of existing research and design of new research models.

0101	Steven Ross	Seats (Total: 15)
	F 2:00pm - 4:30pm	JMZ 2120

SLAA640 **Psycholinguistics**

Credits: 3 Grading Method: Regular, Audit, Sat-Fail

Prerequisite: SLAA610; or permission of ARHU-School of Languages, Literatures, and Cultures department.

An introduction to the field of psycholinguistics that covers speech perception, word recognition, sentence and discourse processing, speech production, and language acquisition. Basic concepts, research methods, major research topics, leading theories and related research findings, with implications of psycholinguistic theories and findings for second language studies.

0101	Nan Jiang	Seats (Total: 15)
	Tu 5:00pm - 7:30pm	JMZ 2120

SLAA649R **Special Topics in Second Language Acquisition; Research Critique**

Credits: 3

Grading Method: Regular, Audit, Sat-Fail

Current topics in research in second language acquisition.

0101	Kira Gor	Seats (Total: 15)
	Th 5:00pm - 7:30pm	JMZ 1117

SLAA719 **Second Language Acquisition and Application Internship**

Credits: 3

Grading Method: Regular, Audit, Sat-Fail

Internship at a site to be determined. Topics may include heritage language learning, immersion education, testing and assessment, translation and interpretation, and national language planning and policy.

Contact department for information to register for this course.

SLAA742 **Second Language Processing**

(Perm req)

Credits: 3

Grading Method: Regular, Audit, Sat-Fail

Restriction: Permission of instructor required for MA students.

Covers leading theoretical approaches and experimental methods in second language processing. Draws on research and theories in Second Language Acquisition (SLA), formal linguistics, cognitive grammar, psycholinguistics, and neurolinguistics.

0101	Nan Jiang	Seats (Total: 15)
	Th 2:00pm - 4:30pm	JMZ 0103

SLAA749B **Special Topics in Second Language Learning; Individual and Group Differences in SLA**

Credits: 3

Grading Method: Regular, Audit, Sat-Fail

Current topics in research on Second Language Learning.

0101	Steven Ross	Seats (Total: 15)
	Tu 2:00pm - 4:30pm	JMZ 1226

SLAA749D **Special Topics in Second Language Learning; The Advanced Learner**

Credits: 3 Grading Method: Regular, Audit, Sat-Fail

Current topics in research on Second Language Learning.

0101	Michael Long	Seats (Total: 15)
	M 5:00pm - 7:30pm	JMZ 1117

SLAA779 **Directed Research in Second Language Acquisition and Application**

Credits: 1-3 Grading Method: Regular, Audit, Sat-Fail

Directed independent research in Second Language Acquisition or Application. In this capstone project, students engage in independent research under faculty direction.

Contact department for information to register for this course.

SLAA798 **Master's Independent Study**

Credits: 1-3 Grading Method: Regular, Audit, Sat-Fail

Contact department for information to register for this course.

SLAA799 **Master's Thesis Research**

Credits: 1-6 Grading Method: Sat-Fail

Contact department for information to register for this course.

SLAA888 **Doctoral Independent Study**

Credits: 1-3 Grading Method: Regular, Audit, Sat-Fail

Individual instruction course.

Contact department for information to register for this course.

SLAA898 **Pre-Candidacy Research**

Credits: 1-8 Grading Method: Regular, Sat-Fail

Contact department for information to register for this course.

SLAA899 **Doctoral Dissertation Research**

(Perm req)

Credits: 6 Grading Method: Sat-Fail

Contact department for information to register for this course.

SLLC School of Languages, Literatures and Cultures Spring 2020

SLLC109N **Beg Less Commonly Taught Language II; Elementary Norwegian II**

Credits: 4 Grading Method: Regular, Pass-Fail

Study of any of the less commonly taught languages at the elementary level, as a continuation of SLLC108 (in the same language). Speaking, listening, reading, and writing a less commonly taught language. Development of an emphasis on oral proficiency skills.

Elementary Norwegian II is a Big Ten Academic Alliance CourseShare course. The instructor is at the University of Minnesota, but you enroll and receive credit for it at Maryland. The course continues the beginning language student's acquisition of proficiency in all four areas of Norwegian: listening, speaking, reading, and writing. Students will also gain knowledge of Norwegian culture. For more information about the course, please contact the instructor, Kyle Korinta (612-625-4059 or kory0008@umn.edu).

0101	Instructor: TBA	Seats (Total: 5)
	Meets January 21, 2020 - May 13, 2020	
	MW 5:40pm - 7:50pm	ONLINE

SLLC109Q **Beg Less Commonly Taught Language II; Elementary Quechua II**

Credits: 3 Grading Method: Regular, Pass-Fail

Study of any of the less commonly taught languages at the elementary level, as a continuation of SLLC108 (in the same language). Speaking, listening, reading, and writing a less commonly taught language. Development of an emphasis on oral proficiency skills.

Elementary Quechua II is a Big Ten Academic Alliance CourseShare course. The instructor is at the University of Michigan, but you enroll and receive credit for it at Maryland. Before enrolling in the course, to determine appropriate placement heritage speakers and those with prior knowledge of Quechua should contact the course instructor at UMich, Ms. Adela Carlos Rios: acarlosr@umich.edu, 734-647-4509. Second-term continuation of Elementary Quechua I; course introduces basic structure of Quechua while focusing on the development of speaking and reading skills.

0101	Instructor: TBA	Seats (Total: 5)
	Meets January 8, 2020 - April 21, 2020	
	TuTh 9:00am - 11:00am	JMZ 3202

SLLC109R **Beg Less Commonly Taught Language II; Elementary Urdu II**

Credits: 3 Grading Method: Regular, Pass-Fail

Study of any of the less commonly taught languages at the elementary level, as a continuation of SLLC108 (in the same language). Speaking, listening, reading, and writing a less commonly taught language. Development of an emphasis on oral proficiency skills.

Elementary Urdu II is a Big Ten Academic Alliance Course-Share course. The instructor is at the University of Minnesota, but you enroll and receive credit for it at Maryland. In order to connect remotely students should have a private space, a computer with webcam and microphone, a stable ethernet connection, and headphones, in addition to any technical requirements from the instructor. Heritage speakers and those with prior knowledge of Urdu should contact the instructor of UMN before enrolling in the course to determine appropriate placement, Meraj Ahmed: ahmedm@UMN.edu or 612-624-4876.

0101	Instructor: TBA	Seats (Total: 5)
	Meets January 21, 2020 - May 4, 2020	
	MTuWThF 1:20pm - 2:10pm	ONLINE

SLLC109V **Beg Less Commonly Taught Language II; Vietnamese II**

Credits: 4 Grading Method: Regular, Pass-Fail

Study of any of the less commonly taught languages at the elementary level, as a continuation of SLLC108 (in the same language). Speaking, listening, reading, and writing a less commonly taught language. Development of an emphasis on oral proficiency skills.

Prerequisite: SLLC108V. The second semester of first-year Vietnamese is a Big Ten Academic Alliance CourseShare online course. The instructor is at Michigan State University, but you enroll and receive credit for it at Maryland. You will need to be entered into the Michigan State University course management system Desire to Learn (D2L). Please contact the Course Coordinator, Ms. Danielle Steider, at 517-355-5105 or steider@msu.edu for more information about this course, including textbook information and instructions on enrolling in D2L, or if you are a heritage speaker or have prior knowledge of Vietnamese. As this is an online course, you do NOT need to be on campus in order to start the course. Although this is an online course, it is NOT self-paced. There are weekly assignments and two required virtual meetings per week.

0101	Instructor: TBA	Seats (Total: 10)
	Class time/details on ELMs	ONLINE

SLLC169L **Special Topics in Study Abroad I; Basque Language and Culture**

Credits: 3

Grading Method: Regular, Pass-Fail, Audit

Special topics course taken as part of an approved study abroad program.

Contact department for information to register for this course.

SLLC209V **Intermediate Less Commonly Taught Language II; Vietnamese**

Credits: 4

Grading Method: Regular, Pass-Fail

Second semester Intermediate-level work on speaking, reading, and writing a less commonly taught language. Continued development of oral proficiency skills.

The second semester of second-year Vietnamese is a Big Ten Academic Alliance CourseShare online course. The instructor is at Michigan State University, but you enroll and receive credit for it at Maryland. You will need to be entered into the Michigan State University course management system Desire to Learn (D2L). Please contact the Course Coordinator, Ms. Danielle Steider, at 517-355-5105 or steider@msu.edu for more information about this course, including textbook information and instructions on enrolling in D2L, or if you are a heritage speaker or have prior knowledge of Vietnamese. As this is an online course, you do NOT need to be on campus in order to start the course. Although this is an online course, it is NOT self-paced. There are weekly assignments and two required virtual meetings per week.

0101	Instructor: TBA	Seats (Total: 10)
	Meets January 13, 2020 - April 24, 2020	
	Class time/details on ELMs	ONLINE

SLLC269B **Special Topics in Study Abroad II**

Credits: 1-6

Grading Method: Regular, Pass-Fail, Audit

Special topics course taken as part of an approved study abroad program.

Contact department for information to register for this course.

SLLC269D **Special Topics in Study Abroad II; Catalan Language and Culture**

Credits: 3

Grading Method: Regular, Pass-Fail, Audit

Special topics course taken as part of an approved study abroad program.

Contact department for information to register for this course.

SLLC286 **Living the Good Life: Chinese Philosophy in the Modern World**

Credits: 3 | Grading Method: Regular, Pass-Fail, Audit | General Education: DSHU, SCIS

Additional information: Taught in English.

Confucius, Mencius, Zhuangzi and other Chinese thinkers who lived more than 2,000 years ago would argue that the contemporary Western emphasis on self-discovery (Find yourself) and self-acceptance has led you astray. See what they have to say and discuss what relevance it has for the modern world as we study how early Chinese thinkers wrestled with questions of existence, morality, and governance. No previous knowledge of Chinese philosophy and history will be assumed and no prerequisites are required. We will discuss ideas that are both historical and relevant to students' lives. What is "the Way"? How do we cultivate spontaneity? Is there a stable self? How can we be more alive? These are questions important for ancient kings but also for UMD students choosing a major, or wondering how ARHU can benefit them.

0101	Andrew Schonebaum	Seats (Total: 49)
	TuTh 12:30pm - 1:45pm	JMZ 2206

SLLC299J **Mythology of the Oppressed**

Credits: 3 | Grading Method: Regular, Pass-Fail, Audit | General Education: DSHU

Examination of universality in human myths and what could account for it. Insights from cultural and literary studies, art history, linguistics, cognitive psychology, paleoanthropology, population dynamics and other such disciplines in the humanities and the social sciences are brought to bear on the question. Students will take a hands-on approach to mythologies within their local environment, attempting to place them within the context of other mythologies and what commonalities may reveal abouttheir society and the human mind.

0101	Juan Uriagereka	Seats (Total: 30)
	TuTh 11:00am - 12:15pm	JMZ 1224

SLLC299R **Special Topics in World Cultures; Elementary Italian I**

Credits: 4 | Grading Method: Regular, Pass-Fail, Audit

Topic to be announced when course is offered.

Contact department for information to register for this course.

SLLC299Z **Special Topics in World Cultures; Spanish Civilization and Culture**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Topic to be announced when course is offered.

Contact department for information to register for this course.

SLLC309 **Language Partner Program**

(Perm req)

Credits: 1 Grading Method: Regular, Pass-Fail

For intermediate- to advanced-level language study. Conversations entirely in target language with native speaker.

Students must be available to meet on Monday, February 10, 2020 and Monday, May 4, 2020.

0101	Mehl Penrose **Meets February 10, 2020 - May 4, 2020** M 4:00pm - 5:50pm Contact instructor or department for details. *Arabic Students must be available to meet on Monday, February 10, 2020 and Monday, May 4, 2020*	Seats (Total: 10) Location: TBA
0102	Mehl Penrose **Meets February 10, 2020 - May 4, 2020** M 4:00pm - 5:50pm Contact instructor or department for details. *Chinese Students must be available to meet on Monday, February 10, 2020 and Monday, May 4, 2020.*	Seats (Total: 10) Location: TBA
0103	Mehl Penrose **Meets February 10, 2020 - May 4, 2020** M 4:00pm - 5:50pm Contact instructor or department for details. *French Students must be available to meet on Monday, February 10, 2020 and Monday, May 4, 2020.*	Seats (Total: 10) Location: TBA
0104	Mehl Penrose **Meets February 10, 2020 - May 4, 2020** M 4:00pm - 5:50pm Contact instructor or department for details. *German Students must be available to meet on Monday, February 10, 2020 and Monday, May 4, 2020.*	Seats (Total: 10) Location: TBA

0105	Mehl Penrose **Meets February 10, 2020 - May 4, 2020** M 4:00pm - 5:50pm Contact instructor or department for details. *Italian Students must be available to meet on Monday, February 10, 2020 and Monday, May 4, 2020.*	Seats (Total: 10) Location: TBA
0106	Mehl Penrose **Meets February 10, 2020 - May 4, 2020** M 4:00pm - 5:50pm Contact instructor or department for details. *Japanese Students must be available to meet on Monday, February 10, 2020 and Monday, May 4, 2020.*	Seats (Total: 10) Location: TBA
0109	Mehl Penrose **Meets February 10, 2020 - May 4, 2020** M 4:00pm - 5:50pm Contact instructor or department for details. *Russian Students must be available to meet on Monday, February 10, 2020 and Monday, May 4, 2020.*	Seats (Total: 10) Location: TBA
0110	Mehl Penrose **Meets February 10, 2020 - May 4, 2020** M 4:00pm - 5:50pm Contact instructor or department for details. *Spanish Students must be available to meet on Monday, February 10, 2020 and Monday, May 4, 2020.*	Seats (Total: 10) Location: TBA

SLLC369A **Special Topics in Study Abroad III**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Special topics course taken as part of an approved study abroad program.

Contact department for information to register for this course.

SLLC369D **Special Topics in Study Abroad III; Art and Dictatorship**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Special topics course taken as part of an approved study abroad program.

Contact department for information to register for this course.

SLLC369E **Special Topics in Study Abroad III; Experiments in Czech Film**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Special topics course taken as part of an approved study abroad program.

Contact department for information to register for this course.

SLLC386 **Experiential Learning**

Credits: 3 Grading Method: Regular, Pass-Fail

Prerequisite: Learning Proposal approved by the Office of Experiential Learning Programs, faculty sponsor and the student's internship sponsor. Restriction: Junior standing or higher.

Contact department for information to register for this course.

SLLC789 **Master's Independent Study**

Credits: 1-3 Grading Method: Regular, Sat-Fail

Contact department for information to register for this course.

SOCY Sociology Spring 2020

SOCY100 **Introduction to Sociology**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit CORE: SB General Education: DSHS

The fundamental concepts and principles of sociology. Includes consideration of culture, patterns of social interaction, norms, values, social institutions, stratification, and social change.

0101	Rachel Crane MWF 10:00am - 10:50am	Seats (Total: 90) ASY 1213
0201	Amelia Branigan TuTh 2:00pm - 3:15pm	Seats (Total: 120) JMZ 0220
0301	Andres Villarreal TuTh 3:30pm - 4:45pm	Seats (Total: 90) ASY 2309
0401	Joey Brown MWF 1:00pm - 1:50pm	Seats (Total: 90) ASY 1213

0501	Joey Brown TuTh 11:00am - 12:15pm	Seats (Total: 78) ESJ 0215

SOCY105 **Introduction to Contemporary Social Problems**

Credits: 3 | Grading Method: Regular, Pass-Fail, Audit | CORE: SB | General Education: DSHS

An examination of contemporary social problems through sociological perspectives; ways in which social problems are part of the organization of society; a detailed study of selected social problems including social conflict and social inequality.

0201	Philip Cohen MW 3:00pm - 4:15pm	Seats (Total: 60) ASY 1213
0301	Zsuzsa Daczo TuTh 12:30pm - 1:45pm	Seats (Total: 60) ASY 2309
0401	Brian Connor MWF 11:00am - 11:50am	Seats (Total: 60) ASY 1213
0601	Kyle Edwards TuTh 4:30pm - 5:45pm	Seats (Total: 60) ASY 1213

SOCY105H **Introduction to Contemporary Social Problems**

Credits: 3 | Grading Method: Regular, Pass-Fail, Audit | CORE: SB | General Education: DSHS

An examination of contemporary social problems through sociological perspectives; ways in which social problems are part of the organization of society; a detailed study of selected social problems including social conflict and social inequality.

0101	Brian Connor MWF 2:00pm - 2:50pm	Seats (Total: 25) ASY 3207

SOCY200 **Human Societies**

Credits: 4 | Grading Method: Regular, Pass-Fail, Audit | CORE: SB | General Education: DSHS, SCIS

A comparative, historical, interdisciplinary study of human socieities that focuses on the main components of human societies, how they are organized, how they change, and how they come to shape our collective social existence.

0101	John Pease MW 2:00pm - 3:15pm F 9:00am - 9:50am	Seats (Total: 20) ASY 2203 ASY 3203	Discussion
0102	John Pease MW 2:00pm - 3:15pm F 10:00am - 10:50am	Seats (Total: 20) ASY 2203 ASY 3207	Discussion
0103	John Pease MW 2:00pm - 3:15pm F 11:00am - 11:50am	Seats (Total: 20) ASY 2203 ASY 3207	Discussion
0104	John Pease MW 2:00pm - 3:15pm F 12:00pm - 12:50pm	Seats (Total: 20) ASY 2203 ASY 3207	Discussion

SOCY201 **Introductory Statistics for Sociology**

Credits: 4 Grading Method: Regular, Pass-Fail, Audit General Education: FSAR

Prerequisite: SOCY100; and (MATH107 or MATH111). Or students who have taken courses with comparable content may contact the department. Restriction: Must not have completed STAT400, BMGT231, or ENEE324. Credit only granted for: BIOM301, BMGT230, CCJS200, ECON230, ECON321, EDMS451, GEOG306, GEOL351, GVPT422, INST314, JOUR405, PSYC200 or SOCY201. (These courses do not necessarily meet the same major requirements-check with your advisor to see which of these courses will count for your major).

Elementary descriptive and inferential statistics. Construction and percentaging of bivariate contingency tables; frequency distributions and graphic presentations; measures of central tendency and dispersion; parametric and nonparametric measures of association and correlation; regression; probability; hypothesis testing; the normal, binomial and chi-square distributions; point and interval estimates.

0101	Alan Neustadtl TuTh 11:00am - 12:15pm W 10:00am - 11:50am	Seats (Total: 20) ASY 2309 LEF 0227	Lab
0103	Alan Neustadtl TuTh 11:00am - 12:15pm W 12:00pm - 1:50pm	Seats (Total: 20) ASY 2309 LEF 0227	Lab

SOCY202 **Introduction to Research Methods in Sociology**

Credits: 4 | Grading Method: Regular, Pass-Fail, Audit | General Education: DSSP

Prerequisite: SOCY201; or permission of BSOS-Sociology department.

The underlying logic, major strategies, specific techniques and skills of sociological research. Research design, measurement, data collection, sampling, field research experiments, surveys, index and scale construction, data analysis, interpretation and report writing.

0101	Wei-hsin Yu MW 2:00pm - 3:15pm F 10:00am - 11:50am	Seats (Total: 20) ASY 2309 LEF 0231	 Lab
0103	Wei-hsin Yu MW 2:00pm - 3:15pm F 12:00pm - 1:50pm	Seats (Total: 20) ASY 2309 LEF 0229	 Lab

SOCY203 **Sociological Theory**

Credits: 3 | Grading Method: Regular, Pass-Fail, Audit

Prerequisite: SOCY100.

Development of the science of sociology; historical backgrounds; recent theories of society. Required of all sociology majors.

Required for all SOCY majors.

0101	Meyer Kestnbaum TuTh 2:00pm - 3:15pm	Seats (Total: 50) TWS 1310

SOCY227 **Introduction to the Study of Deviance**

Credits: 3 | Grading Method: Regular, Pass-Fail, Audit | CORE: SB | General Education: DSHS

Credit only granted for: SOCY227 or SOCY327. Formerly: SOCY327.

An introduction to the sociological study of deviant behavior, covering such topics as mental illness, sexual deviance, and the use of drugs.

0101	Mollie Greenberg MWF 10:00am - 10:50am	Seats (Total: 47) ASY 3203

0201	Zsuzsa Daczo TuTh 3:30pm - 4:45pm	Seats (Total: 45) ASY 3203

SOCY230 **Sociological Social Psychology**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit General Education: DSHS

Theoretical perspectives and their applications. Socialization through the life course, the self-concept, attitudes, emotion, attribution, interpersonal relations, group processes, deviance, and social change.

0101	Amanda Dewey TuTh 12:30pm - 1:45pm	Seats (Total: 180) ASY 2203

SOCY242 **Sociology of Homelessness**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit General Education: DSSP

Examines the causes of and solutions for homelessness in society. How social scientists analyze social issues using ethnographic observation, surveys, official statistics, and other research methods. Discusses how policies have responded to the problem of homelessness, and how to evaluate their effectiveness.

0101	Reeve Vanneman TuTh 12:30pm - 1:45pm	Seats (Total: 36) ASY 3207

SOCY258L **Special Topics in Study Abroad II**

Credits: 1-6 Grading Method: Regular, Pass-Fail, Audit

Special topics course taken as part of an approved study abroad program

Contact department for information to register for this course.

SOCY325 **The Sociology of Gender**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit , D

Prerequisite: 3 credits in SOCY courses. Cross-listed with WMST325. Credit only granted for: SOCY325 or WMST325.

Institutional bases of gender roles and gender inequality, cultural perspectives on gender, gender socialization, feminism, and gender-role change. Emphasis on contemporary American society.

0101	Wei-hsin Yu	Seats (Total: 60)
	MW 3:30pm - 4:45pm	ASY 2309

SOCY335 **Sociology of Health and Illness**

Credits: 3 | Grading Method: Regular, Pass-Fail, Audit | General Education: DSSP

An exploration of the social model to studying health and illness: how meanings and experiences of health and illness are socially produced. How experiences are shaped by the interaction of external social environments (culture, community) and the internal environment (human body), and by socio-demographic variables (race, class, gender, etc.). Disparities in health and healthcare delivery, medicalization of society, determinants of health, social construction of illness, and the social organization of health care.

0101	Joan Kahn	Seats (Total: 80)
	TuTh 12:30pm - 1:45pm	TWS 0320

SOCY370 **Transition from Undergrad to Professional**

Credits: 1 | Grading Method: Regular, Pass-Fail, Audit

Prepares Sociology majors to make the transition from undergraduate to entering graduate school and/or the professional work world. Topics include career options in Sociology, skills for conducting a job search, resume writing and interview preparation, and the graduate application process.

0101	Nicole DeLoatch	Seats (Total: 15)
	W 1:00pm - 2:50pm	ASY 1117

SOCY380 **Honors Independent Reading in Sociology**

(Perm req)

Credits: 3 | Grading Method: Regular, Pass-Fail, Audit

Restriction: Permission of BSOS-Sociology department. Formerly: SOCY378.

This course permits sociology honor students to undertake a program or reading on a particular problem in sociology or a subfield therein. The reading will be done under the supervision of a member of the sociology faculty. Required of sociology honor students.

0101	Instructor: TBA	Seats (Total: 10)
	Contact instructor or department for details.	

SOCY381 **Honors Independent Research in Sociology**

(Perm req)

Credits: 3

Grading Method: Regular, Pass-Fail, Audit

Prerequisite: SOCY380. Formerly: SOCY388.

This course permits sociology students to define a particular problem in sociology or a subfield therein and to develop a research plan for use as a thesis topic. The work will be done under the supervision of a member of the sociology faculty.

Contact department for information to register for this course.

SOCY383 **Honors Thesis Research**

(Perm req)

Credits: 3

Grading Method: Regular, Pass-Fail, Audit

Prerequisite: SOCY381. Formerly: SOCY389.

Student research under the direction of a member of the sociology faculty, culminating in the presentation and defense of a thesis reporting the research.

Contact department for information to register for this course.

SOCY386 **Experiential Learning**

(Perm req)

Credits: 3

Grading Method: Regular, Pass-Fail

Restriction: Permission of BSOS-Sociology department; and junior standing or higher.

To register, students must have departmental permission form signed by instructor and by Coordinator of Sociology Undergraduate Program.

Contact department for information to register for this course.

SOCY398G **Global Migration and the Israeli Case Study**

Credits: 3

Grading Method: Regular, Pass-Fail, Audit

General Education: DSHS, DVUP

Cross-listed with: ISRL343. Credit only granted for: ISRL349K, GVPT368G, SOCY398G, SOCY398I, or ISRL343. Formerly: ISRL349K.

Over 70% of Israel's population is made of first, second or third generation immigrants, who came from over 70 countries, making Israel an ultimate immigrant society. This course will focus on the history of Israel as a case study for the understanding of the historical phenomena of modern immigration.

Cross-listed with ISRL343. Credit granted for ISRL349K, GVPT368G, SOCY398G, SOCY398I, or ISRL343.

0101	Pnina Peri	Seats (Total: 25)
	MW 2:00pm - 3:15pm	BPS 0283

SOCY398L **Special Topics in Sociology; Service Learning**

(Perm req)

Credits: 1

Grading Method: Regular, Pass-Fail, Audit

Topics of special interest to both sociology majors and non-majors.

0101	Instructor: TBA	Seats (Total: 20)
	Contact instructor or department for details.	

SOCY398Q **Special Topics in Sociology; The Holy City and the Holy Mountain: a Sociological look at the Old City of Jerusalem and the Tempe Mount**

Credits: 3

Grading Method: Regular, Pass-Fail, Audit

Topics of special interest to both sociology majors and non-majors.

An exploration of Jerusalem's Old City as the home of multiple holy places and of 20,000 people of varied and ancient communities through archaeology, religion, geography, politics, and, especially using sociological tools, as well as an examination of current conflicts.

0101	Instructor: TBA	Seats (Total: 25)
	Contact instructor or department for details.	

SOCY398T **Special Topics in Sociology; Identity and Culture in Italy: A Comparative Approach**

Credits: 1-3

Grading Method: Regular, Pass-Fail, Audit

Topics of special interest to both sociology majors and non-majors.

Contact department for information to register for this course.

SOCY398Y **Special Topics in Sociology; Issues in African Development**

Credits: 3

Grading Method: Regular, Pass-Fail, Audit

Topics of special interest to both sociology majors and non-majors.

Cross-listed with AASP398D, GEOG398A, and GVPT359F. Credit granted for SOCY398Y, AASP398D, GEOG398A, or GVPT359F.

0101	Sangeetha Madhavan	Seats (Total: 20)
	W 2:00pm - 4:30pm	KEY 0124

SOCY399 **Independent Study in Sociology**

(Perm req)

Credits: 1-6 Grading Method: Regular, Pass-Fail, Audit

Integrated reading or research under the direction and supervision of a faculty member. A maximum of 6 credits may be earned by a student for the same field experience in SOCY386 and SOCY399 combined.

No more than 6 hours of 399 is allowed for credit.

Contact department for information to register for this course.

SOCY399G **Independent Study in Sociology; Social Policy, Social Exclusion**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Integrated reading or research under the direction and supervision of a faculty member. A maximum of 6 credits may be earned by a student for the same field experience in SOCY386 and SOCY399 combined.

Contact department for information to register for this course.

SOCY401 **Intermediate Statistics for Sociologists**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Prerequisite: SOCY201; or students who have taken courses with comparable content may contact the department; or permission of BSOS-Sociology department. Restriction: Must not have completed STAT400, BMGT231, or ENEE324.

This is a course about multiple regression for undergraduate students and presumes that students taking this course will be both producers and consumers of multiple regression results. Students will work with the instructor to produce a research poster presentation based on secondary social science data. In addition to multivariable statistics, students will learn some statistical programming as well as how to organize a research presentation.

0101	Alan Neustadtl	Seats (Total: 20)
	TuTh 9:30am - 10:45am	ASY 1101

SOCY415 **Environmental Sociology**

Credits: 3

Grading Method: Regular, Pass-Fail, Audit

Prerequisite: 6 credits in SOCY courses. Credit only granted for: SOCY498E or SOCY415. Formerly: SOCY498E.

Overview of the field and theoretical themes within the area of environmental sociology and technology. Current issues are explored including: environmental attitudes; environmental movements; environmental justice; globalization; global climate change; and garbage and food.

0101	Dana Fisher	Seats (Total: 29)
	TuTh 12:30pm - 1:45pm	ASY 3203

SOCY420 **Qualitative Research Methods in Sociology**

Credits: 3

Grading Method: Regular, Pass-Fail, Audit

Prerequisite: 6 credits in SOCY courses.

Using the sociological imagination to independently explore research questions as designed by students. Readings will explore dilemmas qualitative researchers confront such as, how to conduct research ethically and how their background influences their findings and analysis. Students will learn how to collect data, analyze it, and present it to others.

0101	Dawn Dow	Seats (Total: 29)
	TuTh 12:30pm - 1:45pm	ASY 1101

SOCY424 **Sociology of Race Relations**

Credits: 3

Grading Method: Regular, Pass-Fail, Audit

Prerequisite: 6 credits in SOCY courses; or permission of UGST-Undergraduate Studies. Restriction: Must not have completed SOCY424. Cross-listed with: AAST424. Credit only granted for: AAST424 or SOCY424.

Analysis of race-related issues, with a primary focus on American society. The historical emergence, development, and institutionalization of racism; the impact of racism on its victims; and racially based conflict.

0101	Kris Marsh	Seats (Total: 29)
	TuTh 11:00am - 12:15pm	ASY 3207

SOCY428 **Research in Inequality**

Credits: 3

Grading Method: Regular, Pass-Fail, Audit

This is the special topics research course for Stratification and Inequality.

0101	Reeve Vanneman	Seats (Total: 29)
	TuTh 2:00pm - 3:15pm	ASY 3203

SOCY431 **Principles of Organizations**

Credits: 3

Grading Method: Regular, Pass-Fail, Audit

Prerequisite: 6 credits in SOCY courses; or permission of BSOS-Sociology department.

Structural and processual characteristics of organizations that make them effective for different purposes and in different environments. Effects of different institutional environments, small group processes, organizational networks, and leadership. Types of organizations studied include formal bureaucracies, professional organizations, and voluntary associations.

0101	Robert Pernick	Seats (Total: 29)
	MWF 12:00pm - 12:50pm	ASY 3211

SOCY432 **Social Movements**

Credits: 3

Grading Method: Regular, Pass-Fail, Audit

Prerequisite: 6 credits in SOCY courses; or permission of BSOS-Sociology department.

Movements that seek change in the social and political structure of society. Origins, tactics, organization, recruitment, and success. Case studies come from such movements as labor, civil rights, student, feminist, environmental, neighborhood, and gay rights.

0101	Wayne Santoro	Seats (Total: 29)
	MW 2:00pm - 3:15pm	ASY 3203

SOCY441 **Social Stratification and Inequality**

Credits: 3

Grading Method: Regular, Pass-Fail, Audit

Prerequisite: 6 credits in SOCY courses; or permission of BSOS-Sociology department. Restriction: Junior standing or higher.

The sociological study of social class, status, and power. Topics include theories of stratification, correlates of social position, functions and dysfunctions of social inequality, status inconsistency, and social mobility.

0101	Meredith Kleykamp TuTh 9:30am - 10:45am	Seats (Total: 80) ASY 1213

SOCY442 **The Black Middle Class**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Prerequisite: 6 credits in SOCY courses. Credit only granted for: SOCY498T or SOCY442. Formerly: SOCY498T.

Students will learn about the Black Middle Class. They will examine and explore the historical context that led to the rise of a Black Middle Class. Innovative avenues into the Black Middle Class will also be examined, including various household and family formations. Finally, the course will cover the consequences of being in the The Black Middle Class, with an emphasis on residential segregation and racial identity.

0101	Kris Marsh TuTh 9:30am - 10:45am	Seats (Total: 29) ASY 3207

SOCY448G **Research in Social Psychology; Group Processes**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

This is the special topics research course in Social Psychology

0101	Mollie Greenberg MW 11:00am - 11:50am Class time/details on ELMs	Seats (Total: 29) ASY 3203 ONLINE

SOCY458Z **Special Topics in Study Abroad IV**

Credits: 1-6 Grading Method: Regular, Pass-Fail, Audit

Special topics course taken as part of an approved study abroad program.

Contact department for information to register for this course.

SOCY467 **Sociology of Education**

Credits: 3

Grading Method: Regular, Pass-Fail, Audit

Prerequisite: 6 credits in SOCY courses; or permission of BSOS-Sociology department.

Sociological analysis of educational institutions and their relation to society: goals and functions, the mechanisms of social control, and the impacts of stratification and social change. Study of the school as a formal organization, and the roles and subcultures of teachers and students.

Contact department for information to register for this course.

SOCY498 **Selected Topics in Sociology**

Credits: 3

Grading Method: Regular, Pass-Fail, Audit

Topics of special interest to advanced undergraduates in sociology. Such courses will be offered in response to student request and faculty interest.

Contact department for information to register for this course.

SOCY498C **Selected Topics in Sociology; Sociology of Culture**

Credits: 3

Grading Method: Regular, Pass-Fail, Audit

Topics of special interest to advanced undergraduates in sociology. Such courses will be offered in response to student request and faculty interest.

0101	Brian Connor	Seats (Total: 29)
	MWF 1:00pm - 1:50pm	ASY 3207

SOCY498F **Selected Topics in Sociology; The Family and Society**

Credits: 3

Grading Method: Regular, Pass-Fail, Audit

Topics of special interest to advanced undergraduates in sociology. Such courses will be offered in response to student request and faculty interest.

Credit only granted for SOCY243, SOCY443, or SOCY498F. Formerly offered as SOCY243 and SOCY443.

0101	Philip Cohen	Seats (Total: 10)
	Contact instructor or department for details.	

SOCY498G **Selected Topics in Sociology; Urban Demography and Community**

Credits: 3

Grading Method: Regular, Pass-Fail, Audit

Topics of special interest to advanced undergraduates in sociology. Such courses will be offered in response to student request and faculty interest.

0101	Julie Park	Seats (Total: 20)
	Tu 2:00pm - 3:15pm Th 2:00pm - 3:15pm	SQH 1111 PLS 1129

SOCY498J **Selected Topics in Sociology; Science, Technology, Innovation and Society**

Credits: 1-3

Grading Method: Regular, Pass-Fail, Audit

Topics of special interest to advanced undergraduates in sociology. Such courses will be offered in response to student request and faculty interest.

Provides a model of society that allows you to anticipate how society is changing so that you can adapt to social change. Specifies how you can increase your creativity and choose an innovative work environment. Explains why there is growing social inequality. Provides solutions to the problems of alienation, powerlessness and social isolation.

0101	Jerald Hage	Seats (Total: 30)
	Contact instructor or department for details.	

SOCY498K **Selected Topics in Sociology; Youth, Resistance, and Social Control**

Credits: 3

Grading Method: Regular, Pass-Fail, Audit

Topics of special interest to advanced undergraduates in sociology. Such courses will be offered in response to student request and faculty interest.

Contact department for information to register for this course.

SOCY498L **Selected Topics in Sociology; Global Social Policy**

Credits: 3

Grading Method: Regular, Pass-Fail, Audit

Topics of special interest to advanced undergraduates in sociology. Such courses will be offered in response to student request and faculty interest.

Contact department for information to register for this course.

SOCY498O **Selected Topics in Sociology; Sociology of Mental Health**

Credits: 3

Grading Method: Regular, Pass-Fail, Audit

Topics of special interest to advanced undergraduates in sociology. Such courses will be offered in response to student request and faculty interest.

Are people mentally ill or do we have sick society? This class will explore sociological perspectives toward mental health. We will consider how sociologists understand the nature, distribution, and treatment of mental illness and health in society.

0101	Joey Brown	Seats (Total: 29)
	MW 4:00pm - 5:15pm	SQH 2120

SOCY498P **Selected Topics in Sociology; Sociology of Cities**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Topics of special interest to advanced undergraduates in sociology. Such courses will be offered in response to student request and faculty interest.

Contact department for information to register for this course.

SOCY498T **Selected Topics in Sociology; Sociology of the Arts**

Credits: 1-3 Grading Method: Regular, Pass-Fail, Audit

Topics of special interest to advanced undergraduates in sociology. Such courses will be offered in response to student request and faculty interest.

Contact department for information to register for this course.

SOCY498U **Selected Topics in Sociology; Sociology of Arts**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Topics of special interest to advanced undergraduates in sociology. Such courses will be offered in response to student request and faculty interest.

Contact department for information to register for this course.

SOCY498Z **Selected Topics in Sociology; Pratical Sociology**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Topics of special interest to advanced undergraduates in sociology. Such courses will be offered in response to student request and faculty interest.

Contact department for information to register for this course.

SOCY602 **Statistics For Sociological Research II**

(Perm req)

Credits: 3

Grading Method: Regular, Audit, Sat-Fail

Prerequisite: SOCY601; or students who have taken courses with comparable content may contact the department. Restriction: Permission of instructor. Credit only granted for: SOCY602 or SURV602.

This course introduces regression analysis using matrix algebra. Topics include bivariate regression, multivariate regression, tests of significance, regression diagnostics, indicator variables, interaction terms, extra sum of squares, and the general linear model. Other topics may be addressed such as logistic regression and path analysis. Statistical programming software may be used.

0101	Monica Caudillo	Seats (Total: 20)
	Th 3:30pm - 6:00pm	ASY 1101

SOCY607 **Methods of Secondary Data Analysis**

Credits: 3

Grading Method: Regular, Audit, Sat-Fail

This is a practicum-oriented course designed to provide students with exposure to several of the major publicly available secondary data sources widely used in sociology, and practical experience in locating, evaluating, managing and analyzing secondary data. Students will manipulate large datasets, consider how to formulate hypotheses and build research designs around existing data sources and critically evaluate the utility of different secondary datasets.

0101	Meredith Kleykamp	Seats (Total: 20)
	TuTh 2:00pm - 3:15pm	ASY 3207

SOCY611 **Introduction to Demographic Methods**

Credits: 3

Grading Method: Regular, Audit, Sat-Fail

Survey of standard demographic methods for the description and analysis of population size, structure and composition, including techniques for the analysis of fertility, mortality and migration.

0101	Joan Kahn	Seats (Total: 20)
	Tu 3:30pm - 6:00pm	ASY 3207

SOCY632 **Introduction to Qualitative Research Methods**

Credits: 3

Grading Method: Regular, Audit, Sat-Fail

Restriction: Must be in Sociology (Doctoral) program; and permission of instructor.

An introductory course in qualitative research methods, intended to provide a general overview of the ways sociologists collect qualitative information about social phenomena, focusing on how to collect and anaylyze data that are reliable and applicable to our research questions. We will begin by constructing a research question that will drive our work for the entire semester. You will learn three of the main ways that qualitative data are used in sociological research: analysis of written material, participant observation, and open ended semi-structured interviews.

0101	Dawn Dow	Seats (Total: 20)
	TuTh 2:00pm - 3:15pm	ASY 1101

SOCY644 **Gender, Work, and Family**

Credits: 3 Grading Method: Regular, Audit, Sat-Fail

The interrelationships among gender, work, and family in contemporary societies. Major research issues addressed from an interdisciplinary and comparative (international) perspective.

0101	Liana Sayer	Seats (Total: 20)
	M 3:30pm - 6:00pm	ASY 1101

SOCY699 **Special Social Problems**

Credits: 1-16 Grading Method: Regular, Sat-Fail

Contact department for information to register for this course.

SOCY699E **Special Social Problems; Critical Race Initiative**

(Perm req)

Credits: 1 Grading Method: Regular, Audit, Sat-Fail

Permission of instructor required.Please contact instructor or department for details.

0101	Kris Marsh	Seats (Total: 10)
	Contact instructor or department for details.	

SOCY699G **Special Social Problems; Group Processes**

Credits: 3 Grading Method: Regular, Audit, Sat-Fail

0101	Jeffrey Lucas	Seats (Total: 20)
	W 3:30pm - 6:00pm	ASY 2115

SOCY699H **Special Social Problems; Science, Technology, Innovation and Society**

Credits: 3

Grading Method: Regular, Audit, Sat-Fail

Provides a model of society that allows you to anticipate how society is changing so that you can adapt to social change. Specifies how you can increase your creativity and choose an innovative work environment. Explains why there is growing social inequality. Provides solutions to the problems of alienation, powerlessness, and social isolation.

0101	Jerald Hage	Seats (Total: 30)
	Contact instructor or department for details.	

SOCY699I **Special Social Problems; Publishing Sociology**

Credits: 3-16

Grading Method: Regular, Audit, Sat-Fail

0101	Dana Fisher	Seats (Total: 20)
	Tu 3:30pm - 6:00pm	ASY 2115

SOCY699K **Special Social Problems; States, Politics, and Social Change**

Credits: 3

Grading Method: Regular, Audit, Sat-Fail

0101	Meyer Kestnbaum	Seats (Total: 20)
	Th 3:30pm - 6:00pm	ASY 2115

SOCY699M **Special Social Problems; Proseminar**

Credits: 2

Grading Method: Regular, Audit, Sat-Fail

0101	Brian Connor	Seats (Total: 10)
	Contact instructor or department for details.	

SOCY699N **Special Social Problems; Intermediate Sociological Statistics**

Credits: 1

Grading Method: Regular, Audit, Sat-Fail

0101	Monica Caudillo	Seats (Total: 20)
	F 2:00pm - 4:00pm	LEF 0231

SOCY699R **Special Social Problems; Social Movements Theory**

Credits: 3 Grading Method: Regular, Audit, Sat-Fail

0101	Wayne Santoro Tu 6:30pm - 9:00pm	Seats (Total: 20) ASY 1101

SOCY699T **Special Social Problems; Teaching Sociology**

Credits: 3 Grading Method: Regular, Audit, Sat-Fail

0101	Nicole Cousin-Gossett M 3:30pm - 6:00pm	Seats (Total: 20) ASY 2115

SOCY699V **Special Social Problems; Contexting Sociology**

Credits: 1 Grading Method: Regular, Sat-Fail

Restricted to Sociology graduate students.

0101	Rashawn Ray F 11:00am - 11:50am	Seats (Total: 10) ASY 4111

SOCY699W **Special Social Problems; Combined Master's Research Paper**

Credits: 3 Grading Method: Regular, Audit, Sat-Fail

0101	Nicole Cousin-Gossett Contact instructor or department for details.	Seats (Total: 10)

SOCY709D **Advanced Special Topics in Data Analysis**

Credits: 3 Grading Method: Regular, Audit, Sat-Fail

An intensive examination of an area of interest in data analysis, including such topics as log linear analysis; discriminant function analysis; canonical correlation; factor analysis; analysis of qualitative data; content analysis; mathematical models.

0101	Michael Rendall W 3:30pm - 6:00pm	Seats (Total: 20) ASY 1101

SOCY799 **Master's Thesis Research**

(Perm req)

Credits: 1-6 Grading Method: Sat-Fail

Contact department for information to register for this course.

SOCY819 **Research Seminar in Social Psychology**

Credits: 1 Grading Method: Regular, Audit, Sat-Fail

An advanced research seminar for students preparing to do research or take comprehensive examinations in social psychology.

0101	Jeffrey Lucas	Seats (Total: 10)
	Contact instructor or department for details.	

SOCY829 **Research Seminar in Sociological Theory**

Credits: 1 Grading Method: Regular, Audit, Sat-Fail

An advanced research seminar for students preparing to do research or take comprehensive examinations in sociological theory.

0101	Meyer Kestnbaum	Seats (Total: 10)
	Contact instructor or department for details.	

SOCY849 **Research Seminar in Demography**

Credits: 1 Grading Method: Regular, Audit, Sat-Fail

An advanced research seminar for students preparing to do research or take comprehensive examinations in demography.

0101	Sonalde Desai	Seats (Total: 10)
	Contact instructor or department for details.	

SOCY858 **Research Seminar in Gender, Work and Family**

Credits: 1 Grading Method: Regular, Audit, Sat-Fail

An advanced research seminar for students preparing to do research or take the specialty examination in Gender, Work and Family.

0101	Liana Sayer	Seats (Total: 10)
	Contact instructor or department for details.	

SOCY869 **Research Seminar in Military Sociology**

Credits: 1 Grading Method: Regular, Audit, Sat-Fail

An advanced research seminar for students preparing to do research or take comprehensive examinations in military sociology.

0101	Meredith Kleykamp	Seats (Total: 20)
	Contact instructor or department for details.	

SOCY889 **Research Seminar in Social Stratification**

Credits: 1 Grading Method: Regular, Audit, Sat-Fail

An advanced research seminar for students preparing to do research or take comprehensive examinations in stratification.

0101	Philip Cohen	Seats (Total: 10)
	Contact instructor or department for details.	

SOCY898 **Pre-Candidacy Research**

(Perm req)

Credits: 1-8 Grading Method: Regular, Sat-Fail

Contact department for information to register for this course.

SOCY899 **Doctoral Dissertation Research**

(Perm req)

Credits: 6 Grading Method: Sat-Fail

Contact department for information to register for this course.

SPAN Spanish Spring 2020

SPAN103 **Intensive Elementary Spanish**

Credits: 4 Grading Method: Regular, Pass-Fail, Audit

Prerequisite: Must have appropriate Foreign Language Placement Test (FLPT) score. Restriction: Must not be a native/fluent speaker of Spanish. Credit only granted for: SPAN102 or SPAN103.

Covers speaking, reading, writing, listening, and culture of Spanish-speaking world.

0101	Mariana Mazer MWF 10:00am - 10:50am Tu 10:00am - 10:50am	Seats (Total: 25) JMZ 0205 JMZ 0205
0201	Maria Herrera Arvay MWF 11:00am - 11:50am Tu 11:00am - 11:50am	Seats (Total: 25) JMZ 0103 JMZ 0103
0301	Maria Herrera Arvay MTuWF 12:00pm - 12:50pm	Seats (Total: 25) JMZ 0103
0401	Olga Morozova MTuWF 1:00pm - 1:50pm	Seats (Total: 25) JMZ 0103

SPAN169L **Special Topics in Study Abroad I; Spanish Language A1**

Credits: 6 Grading Method: Regular, Pass-Fail, Audit

Special topics course taken as part of an approved study abroad program.

Contact department for information to register for this course.

SPAN169M **Special Topics in Study Abroad I; Spanish Language A2**

Credits: 6 Grading Method: Regular, Pass-Fail, Audit

Special topics course taken as part of an approved study abroad program.

Contact department for information to register for this course.

SPAN169O **Special Topics in Study Abroad I; Beginner Spanish I**

Credits: 6 Grading Method: Regular, Pass-Fail, Audit

Special topics course taken as part of an approved study abroad program.

Contact department for information to register for this course.

SPAN169P **Special Topics in Study Abroad I; Beginner Spanish II**

Credits: 6 Grading Method: Regular, Pass-Fail, Audit

Special topics course taken as part of an approved study abroad program.

Contact department for information to register for this course.

SPAN169X **Special Topics in Study Abroad I; Elementary Spanish I**

Credits: 2-6 Grading Method: Regular, Pass-Fail, Audit

Special topics course taken as part of an approved study abroad program.

Contact department for information to register for this course.

SPAN169Y **Special Topics in Study Abroad I; Elementary Spanish II**

Credits: 2-6 Grading Method: Regular, Pass-Fail, Audit

Special topics course taken as part of an approved study abroad program.

Contact department for information to register for this course.

SPAN203 **Intensive Intermediate Spanish**

Credits: 4 Grading Method: Regular, Pass-Fail, Audit CORE: HO

Prerequisite: SPAN103; or must have appropriate Foreign Language Placement Test (FLPT) score.
Restriction: Must not be a native/fluent speaker of Spanish.

Covers speaking, reading, writing, listening, and culture of Spanish-speaking world.

0101	Elisa Gironzetti MWThF 10:00am - 10:50am	Seats (Total: 25) JMZ 0120
0201	Charis Gozzo MWF 11:00am - 11:50am Th 11:00am - 11:50am	Seats (Total: 25) JMZ 1215 JMZ 1120
0301	Roberto Katrandjiyski MWF 11:00am - 11:50am Th 11:00am - 11:50am	Seats (Total: 25) JMZ 0122 JMZ 2123
0401	Charis Gozzo MWF 12:00pm - 12:50pm Th 12:00pm - 12:50pm	Seats (Total: 25) JMZ 0120 JMZ 0120

0501	Ligia Gonzalez MWF 1:00pm - 1:50pm Th 1:00pm - 1:50pm	Seats (Total: 25) JMZ 0120 JMZ 0120
0601	Roberto Katrandjiyski MWF 1:00pm - 1:50pm Th 1:00pm - 1:50pm	Seats (Total: 25) JMZ 0118 JMZ 0103
0701	Jose Magro MWF 2:00pm - 2:50pm Th 2:00pm - 2:50pm	Seats (Total: 25) JMZ 1120 JMZ 1120

SPAN204 **Spanish Grammar Review**

Credits: 3 | Grading Method: Regular, Pass-Fail, Audit | CORE: HO

Prerequisite: SPAN203; or must have appropriate Foreign Language Placement Test (FLPT) score. Restriction: Not open to fluent/native speakers of Spanish.

An in-depth study and analysis of selected grammatical topics in a contextualized framework.

0101	Jose Magro MWF 11:00am - 11:50am	Seats (Total: 25) JMZ 1224
0201	Ofelia Montelongo Valencia TuTh 11:00am - 12:15pm	Seats (Total: 25) JMZ 0205
0301	Jose Magro MWF 1:00pm - 1:50pm	Seats (Total: 25) JMZ 2120

SPAN206 **Spanish for Heritage Speakers I**

Credits: 3 | Grading Method: Regular, Pass-Fail, Audit

Prerequisite: Native or near native knowledge of and no formal education in Spanish.

Review of oral and written Spanish for students who have native or near native knowledge of, but no formal education in Spanish. Taught in Spanish.

0101	Evelyn Canabal-Torres MWF 10:00am - 10:50am	Seats (Total: 25) JMZ 3120

SPAN207 **Reading and Writing in Spanish**

Credits: 3 | Grading Method: Regular, Pass-Fail, Audit | General Education: DSHU

Prerequisite: Must have completed or be concurrently enrolled in SPAN204; or must have appropriate Foreign Language Placement Test (FLPT) score.

Selected readings with emphasis on reading comprehension and the development of reading strategies. Work in composition writing and a review of selected grammatical topics. Complements material of SPAN204.

0101	Chila Hidalgo MWF 10:00am - 10:50am	Seats (Total: 25) JMZ 2207
0201	Chila Hidalgo MWF 1:00pm - 1:50pm	Seats (Total: 25) JMZ 2122
0301	Chila Hidalgo MWF 2:00pm - 2:50pm	Seats (Total: 25) JMZ 3205
0401	Jackson Monzon TuTh 11:00am - 12:15pm	Seats (Total: 25) JMZ 0122
0501	Daniela Hernandez TuTh 12:30pm - 1:45pm	Seats (Total: 25) JMZ 3120

SPAN235 **Issues in Latin American Studies II**

Credits: 3 | Grading Method: Regular, Pass-Fail | CORE: HO, D | General Education: DSHS, DSHU, DVUP

Cross-listed with PORT235, LASC235. Credit only granted for: LASC235, PORT235, or SPAN235.

Major issues shaping Latin American and Caribbean societies including the changing constructions of race, ethnicity, gender and class as well as expressions of popular cultures and revolutionary practices. A continuation of SPAN/PORT/LASC234, but completion of 234 is not a prerequisite. Taught in English.

0101	Cara Snyder TuTh 11:00am - 12:15pm	Seats (Total: 30) JMZ 2206
0201	Cara Snyder TuTh 9:30am - 10:45am	Seats (Total: 30) JMZ 2206

SPAN269A **Special Topics in Study Abroad II; B1 Intermediate Level Spanish I**

Credits: 3

Grading Method: Regular, Pass-Fail, Audit

Special topics course taken as part of an approved study abroad program.

Contact department for information to register for this course.

SPAN269B **Special Topics in Study Abroad II; B1 Intermediate Level Spanish II**

Credits: 6

Grading Method: Regular, Pass-Fail, Audit

Special topics course taken as part of an approved study abroad program.

Contact department for information to register for this course.

SPAN269I **Special Topics in Study Abroad II; Intensive Intermediate Spanish**

Credits: 3

Grading Method: Regular, Pass-Fail, Audit

Special topics course taken as part of an approved study abroad program.

Contact department for information to register for this course.

SPAN269L **Special Topics in Study Abroad II; Spanish Language B1**

Credits: 6

Grading Method: Regular, Pass-Fail, Audit

Special topics course taken as part of an approved study abroad program.

Contact department for information to register for this course.

SPAN269V **Special Topics in Study Abroad II; Identities and Stereotypes in Latin America**

Credits: 3

Grading Method: Regular, Pass-Fail, Audit

Special topics course taken as part of an approved study abroad program.

Contact department for information to register for this course.

SPAN301 **Advanced Grammar and Composition I**

Credits: 3

Grading Method: Regular, Pass-Fail, Audit

Prerequisite: Must have completed or be concurrently enrolled in SPAN207.

Practice of complex grammatical structures through reading and writing of compositions and essays. Specific lexical, syntactic, rhetorical, and stylistic devices will be highlighted.

0101	Ana Acedo Garcia MWF 10:00am - 10:50am	Seats (Total: 20) JMZ 1226
0201	Ana Acedo Garcia MWF 11:00am - 11:50am	Seats (Total: 20) JMZ 0125
0301	Sarah Dowman MWF 12:00pm - 12:50pm	Seats (Total: 20) JMZ 2120
0501	Ana Claudia Dos Santos Sao Bernardo TuTh 9:30am - 10:45am	Seats (Total: 20) JMZ 2125
0601	Cecilia Battauz TuTh 11:00am - 12:15pm	Seats (Total: 20) JMZ 1215
0701	Ana Claudia Dos Santos Sao Bernardo TuTh 12:30pm - 1:45pm	Seats (Total: 20) JMZ 1215

SPAN302 **Advanced Grammar and Composition II**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Prerequisite: SPAN301.

Practice in and writing of different types of compositions and essays, including narrations, descriptions, and persuasive writing. Review of problematic syntactical structures.

Contact department for information to register for this course.

SPAN303 **Approaches to Cultural Materials in the Hispanic World**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit General Education: DSHU

Prerequisite: SPAN301. Recommended: May elect to take SPAN311 and/or SPAN316 in same semester as SPAN303.

Development of proficiency in critical thought through the reading, viewing, and analytical discussion of major genres and styles of cultural materials selected from Spanish-speaking world. Taught in Spanish.

0201	Sofia Maurette MWF 11:00am - 11:50am	Seats (Total: 20) JMZ 3205

0301	Chris Lewis MWF 12:00pm - 12:50pm	Seats (Total: 20) JMZ 0125
0401	Nelida Devesa-Gomez MW 3:00pm - 4:15pm	Seats (Total: 20) JMZ 2125
0501	Carmen Benito-Vessels TuTh 9:30am - 10:45am	Seats (Total: 20) JMZ 2123
0601	Hernan De Pinillos TuTh 11:00am - 12:15pm	Seats (Total: 20) JMZ 1226
0701	Nidia Reyes TuTh 12:30pm - 1:45pm	Seats (Total: 20) JMZ 1120
0801	Ginette Eldredge TuTh 2:00pm - 3:15pm	Seats (Total: 20) JMZ 3120

SPAN306 **Spanish for Heritage Speakers II**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Prerequisite: SPAN206.

Practice of complex grammatical structures through reading and writing of compositions and essays. Specific lexical, syntactic, rhetorical and stylistic devices will be highlighted. Designed for Spanish speakers educated in English. Taught in Spanish.

0101	Evelyn Canabal-Torres MWF 11:00am - 11:50am	Seats (Total: 20) JMZ 3120

SPAN307 **Oral Communication Skills for Heritage Speakers of Spanish**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Prerequisite: Native or near native knowledge of and no formal education in Spanish.

Development of techniques for formal public speaking in Spanish. Writing and delivering oral presentations for varied audiences and purposes. Includes strategies for organization, the use of rhetorical patterns, and the development of effective discourse. Designed for Heritage speakers of Spanish with native or near native knowledge of Spanish, but no formal education in Spanish. Taught in Spanish.

0101	Nidia Reyes TuTh 11:00am - 12:15pm	Seats (Total: 20) JMZ 3205

SPAN311 **Advanced Communication I**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Prerequisite: SPAN301; and must have completed or be concurrently enrolled in SPAN303. Restriction: Must not be a native/fluent speaker of Spanish.

Further development of listening, speaking, and writing skills in Spanish. Opportunity to develop oral and written fluency, improve pronunciation and increase vocabulary. Individual and/or group oral presentations. Taught in Spanish.

0101	Ana Acedo Garcia MW 3:00pm - 4:15pm	Seats (Total: 20) JMZ 0208
0201	Ana Acedo Garcia MWF 1:00pm - 1:50pm	Seats (Total: 20) JMZ 1215
0301	Cecilia Battauz TuTh 12:30pm - 1:45pm	Seats (Total: 20) JMZ 2122
0401	Sarah Dowman MWF 11:00am - 11:50am	Seats (Total: 20) JMZ 0118

SPAN316 **Spanish Translation I**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Prerequisite: SPAN301; and must have completed or be concurrently enrolled in SPAN303.

Translation of texts into Spanish and/or English. Taught in Spanish.

0101	Ginette Eldredge TuTh 12:30pm - 1:45pm	Seats (Total: 20) JMZ 2117
0201	Luis Charry MWF 12:00pm - 12:50pm	Seats (Total: 20) JMZ 1226

SPAN331 **Spanish Culture, Civilization and Literature I: Medieval Times**

Credits: 3 | Grading Method: Regular, Pass-Fail, Audit | General Education: DSHU

Prerequisite: SPAN303; and (SPAN311 or SPAN316).

The exploration of cultures of the Iberian Peninsula from its origins until the 15th century as well as the study of historical and political events that gave rise to the Spanish state. Taught in Spanish.

Contact department for information to register for this course.

SPAN332 **Spanish Culture, Civilization and Literature II: Renaissance and Baroque**

Credits: 3 | Grading Method: Regular, Pass-Fail, Audit | General Education: DSHU

Prerequisite: SPAN303; and (SPAN311 or SPAN316).

An overview of cultural and literary production of Spain from the late 15th through late 17th centuries, exploring the production of literary texts in their socio-historical, political, religious and cultural contexts and development. Taught in Spanish.

0101	Carmen Benito-Vessels	Seats (Total: 25)
	TuTh 12:30pm - 1:45pm	JMZ 1122

SPAN333 **Spanish Culture, Civilization and Literature III: Modern Times**

Credits: 3 | Grading Method: Regular, Pass-Fail, Audit | General Education: DSHU

Prerequisite: SPAN303; and (SPAN311 or SPAN316).

An overview of cultural and literary production of Spain from the late 17th century through the present day, exploring the production of literary texts in their socio-historical, political, religious and cultural contexts and development. Taught in Spanish.

0101	Jose Naharro-Calderon	Seats (Total: 25)
	MW 3:00pm - 4:15pm	JMZ 2120

SPAN335 **Cultural History of Seville**

Credits: 4 | Grading Method: Regular, Pass-Fail, Audit

Prerequisite: SPAN301. Recommended: SPAN303.

Cultural History of Seville: An exploration of the Iberian, Mediterranean, and transatlantic contexts shaping the history, identity, and cultural and artistic expressions of Seville. Includes texts from the Middle Ages to the twenty first century. Focus on the historical, literary and cultural evolution of Seville from the Roman Empire and the Moorish occupation to the discovery and conquest of America until present times. Taught in Spanish.

Contact department for information to register for this course.

SPAN361 **Latin American Literatures and Cultures I: From Pre-Columbian to Colonial Times**

Credits: 3	Grading Method: Regular, Pass-Fail, Audit	General Education: DSHU, DVUP

Prerequisite: SPAN303; and (SPAN311 or SPAN316).

Overview of cultural history of Latin America from pre-Columbian civilizations to the Colonial period, exploring the foundations of the Spanish American cultural and literary tradition to approximately 1770. Taught in Spanish.

Contact department for information to register for this course.

SPAN362 **Latin American Literatures and Cultures II: From Independence to Nation Formation**

Credits: 3	Grading Method: Regular, Pass-Fail, Audit	General Education: DSHU, DVUP

Prerequisite: SPAN303; and (SPAN311 or SPAN316).

An overview of cultural and literary production of Latin America from the 18th Century to approximately 1900, exploring the production of literary texts in their socio-historical, political, and cultural contexts and development. Taught in Spanish.

0101	Luis Charry MWF 11:00am - 11:50am	Seats (Total: 25) JMZ 2206
0201	Saul Sosnowski TuTh 2:00pm - 3:15pm	Seats (Total: 25) JMZ 2207

SPAN363 **Latin American Literatures and Cultures III: From Modernism to Neo-Liberalism**

Credits: 3	Grading Method: Regular, Pass-Fail, Audit	General Education: DSHU, DVUP

Prerequisite: SPAN303; and (SPAN311 or SPAN316).

An overview of cultural and literary production of Latin America from the late 19th through the early 21st centuries, exploring the production of literary texts in their socio-historical, political, and cultural contexts and development. Taught in Spanish.

0101	Lisa Carney MWF 1:00pm - 1:50pm	Seats (Total: 25) JMZ 2206
0201	Juan Carlos Quintero-Herencia TuTh 11:00am - 12:15pm	Seats (Total: 25) JMZ 3120

SPAN369A **Special Topics in Study Abroad III; Advanced Oral Communication in Spanish**

Credits: 1 Grading Method: Regular, Pass-Fail, Audit

Special topics course taken as part of an approved study abroad program.

Contact department for information to register for this course.

SPAN369B **Special Topics in Study Abroad III; Advanced Academic Writing in Spanish**

Credits: 1 Grading Method: Regular, Pass-Fail, Audit

Special topics course taken as part of an approved study abroad program.

Contact department for information to register for this course.

SPAN369F **Special Topics in Study Abroad III; Spanish Oral Skills through Theatre**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Special topics course taken as part of an approved study abroad program.

Contact department for information to register for this course.

SPAN369G **Special Topics in Study Abroad III; Spanish for the Health Professional**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Special topics course taken as part of an approved study abroad program.

Contact department for information to register for this course.

SPAN369I **Special Topics in Study Abroad III; Advanced Studies in Spanish**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Special topics course taken as part of an approved study abroad program.

Contact department for information to register for this course.

SPAN369J **Special Topics in Study Abroad III; Advanced Spanish Expression & Grammar I**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Special topics course taken as part of an approved study abroad program.

Contact department for information to register for this course.

SPAN369M **Special Topics in Study Abroad III; Spanish Language B2**

Credits: 6 Grading Method: Regular, Pass-Fail, Audit

Special topics course taken as part of an approved study abroad program.

Contact department for information to register for this course.

SPAN369O **Special Topics in Study Abroad III; Spanish Conversation and Oral Skills**

Credits: 1-3 Grading Method: Regular, Pass-Fail, Audit

Special topics course taken as part of an approved study abroad program.

Contact department for information to register for this course.

SPAN369Q **Special Topics in Study Abroad III; Spanish Phonetics and Phonology**

Credits: 1 Grading Method: Regular, Pass-Fail, Audit

Special topics course taken as part of an approved study abroad program.

Contact department for information to register for this course.

SPAN369R **Special Topics in Study Abroad III; Advanced Reading Skills in Spanish**

Credits: 1 Grading Method: Regular, Pass-Fail, Audit

Special topics course taken as part of an approved study abroad program.

Contact department for information to register for this course.

SPAN369T **Special Topics in Study Abroad III; Angloamerican Travelers in Spain**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Special topics course taken as part of an approved study abroad program.

Contact department for information to register for this course.

SPAN369V **Special Topics in Study Abroad III; Advanced Present-Day Spanish Usage**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Special topics course taken as part of an approved study abroad program.

Contact department for information to register for this course.

SPAN369W **Special Topics in Study Abroad III; Spanish Stylistics: Advanced Spanish Writing and Stylistics**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Special topics course taken as part of an approved study abroad program.

Contact department for information to register for this course.

SPAN369Y **Special Topics in Study Abroad III; B2 Advanced Level Spanish 1**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Special topics course taken as part of an approved study abroad program.

Contact department for information to register for this course.

SPAN369Z **Special Topics in Study Abroad III; B2 Advanced Level Spanish 2**

Credits: 6 Grading Method: Regular, Pass-Fail, Audit

Special topics course taken as part of an approved study abroad program.

Contact department for information to register for this course.

SPAN370 **Spanish for Business I**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Prerequisite: SPAN303; and (SPAN311 or SPAN316). Credit only granted for: SPAN315 or SPAN370. Formerly: SPAN315.

Business Spanish terminology, vocabulary and practices. Emphasis on everyday spoken and written Spanish. Readings and discussions of Spanish commercial topics. May include exposure to Spanish commercial topics. May include exposure to Spanish business environments. Taught in Spanish.

0101	Sarah Dowman	Seats (Total: 25)
	MWF 10:00am - 10:50am	JMZ 2117

SPAN371 **Spanish for the Health Professions**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Prerequisite: SPAN303; and (SPAN311 or SPAN316). Credit only granted for: SPAN371 or SPAN389A. Formerly: SPAN389A.

Exploration of cultural and linguistic skills for the health professions including vocabulary, listening, speaking, reading and strategies. No experience in the professional area necessary. Taught in Spanish.

0101	Evelyn Canabal-Torres	Seats (Total: 25)
	MWF 12:00pm - 12:50pm	JMZ 2206

SPAN373 **Spanish in the Media**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Prerequisite: SPAN303; and (SPAN311 or SPAN316). Or permission of instructor. Credit only granted for: SPAN373 or SPAN359A. Formerly: SPAN359A.

Exploration of Spanish in current events in the Hispanic world in local and international press and varied media, and production of journalistic articles.

0101	Chila Hidalgo	Seats (Total: 25)
	MWF 11:00am - 11:50am	JMZ 1117

SPAN386 **Experiential Learning**

(Perm req)

Credits: 3-6 Grading Method: Regular, Pass-Fail

Prerequisite: Permission of ARHU-School of Languages, Literatures, and Cultures department. Restriction: Junior standing or higher.

Contact department for information to register for this course.

SPAN399 **Independent Study in Spanish**

(Perm req)

Credits: 1-3 Grading Method: Regular, Pass-Fail, Audit

Specific readings in literature or a translation project under the supervision of a faculty member of the department.

Prerequisite: permission of department.

Contact department for information to register for this course.

SPAN401 **Advanced Composition I**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Prerequisite: SPAN302; or permission of ARHU-School of Languages, Literatures, and Cultures department.

Compositions and essays with emphasis on stylistics, idiomatic and syntactic structures. Organization and writing of research papers.

Contact department for information to register for this course.

SPAN402 **Advanced Composition II**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Prerequisite: SPAN401; or permission of ARHU-School of Languages, Literatures, and Cultures department.

Compositions and essays with emphasis on stylistics, idiomatic and syntactic structures. Organization and writing of research papers.

Contact department for information to register for this course.

SPAN408B **Special Topics in Iberian and Latin American Studies; Violence, Exclusion and Resistance in South American Cities**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Special topics in (a) the literature and film of Spain, Spanish-speaking Latin America, and U.S. Latina/o communities; (b) Spanish linguistics; and (c) Spanish, Latin American, and U.S. Latino cultural studies. Each topic will be announced when the course is offered.

This course will address a major problem in Latin America-- the construction and representation of violence, exclusion, and resistance in South American slums-- through various approaches (to include ecocriticism, gender studies, and more) to cultural products such as literary texts, films, music, photographs, and graffiti. Since the mid-20th century, many Latin American cities have experienced the emergence, development, and expansion of these informal settlements as an improvised response to the housing problem. Names such as "villas miseria" in Argentina, "campamentos" in Chile, and "cantegriles" in Uruguay have changed over time, but regardless of their title, they continue to highlight urban inequality. Taught in Spanish.

0101	Daniela Bulansky	Seats (Total: 25)
	MWF 1:00pm - 1:50pm	JMZ 0122

SPAN408D **Special Topics in Iberian and Latin American Studies; Cervantes: Don Quixote**

Credits: 3

Grading Method: Regular, Pass-Fail, Audit

Special topics in (a) the literature and film of Spain, Spanish-speaking Latin America, and U.S. Latina/o communities; (b) Spanish linguistics; and (c) Spanish, Latin American, and U.S. Latino cultural studies. Each topic will be announced when the course is offered.

100 well-known authors from 54 countries voted Don Quixote (1605, 1615) by Miguel de Cervantes the "most meaningful book of all time" in a 2002 poll organized by editors at the Norwegian Book Clubs in Oslo. Widely acknowledged as the first modern novel, Don Quixote tells the story of a middle-aged Spanish gentleman who, obsessed with the chivalrous ideals found in romantic books, decides to take up his lance and sword to defend the helpless and destroy the wicked. Seated upon his naggy horse Rocinante and accompanied by his loyal squire Sancho Panza, Don Quixote sets out on the roads of Spain seeking adventure and glory. The course will consist of a chapter by chapter commentary-- at the literal and historical levels, as well as in its symbolical and widely anthropolical dimensions and its universal impact on music, popular culture, and the visual arts. Taught in Spanish.

0101	Hernan De Pinillos	Seats (Total: 25)
	TuTh 2:00pm - 3:15pm	JMZ 2117

SPAN408F **Special Topics in Iberian and Latin American Studies; The Spanish-American Short Story**

Credits: 3

Grading Method: Regular, Pass-Fail, Audit

Special topics in (a) the literature and film of Spain, Spanish-speaking Latin America, and U.S. Latina/o communities; (b) Spanish linguistics; and (c) Spanish, Latin American, and U.S. Latino cultural studies. Each topic will be announced when the course is offered.

Putting literary texts in dialogue with historical/political developments, the first part of the course will provide a panoramic view of the short story from the early nineteenth century to contemporary trends. We will then focus on key writers such as Borges, Cortazar, and Rulfo, before proceeding to more recent writers from across the region. Taught in Spanish.

0101	Saul Sosnowski	Seats (Total: 25)
	TuTh 11:00am - 12:15pm	JMZ 1122

SPAN408J **Special Topics in Iberian and Latin American Studies; Contemporary Mexican Literature**

Credits: 3

Grading Method: Regular, Pass-Fail, Audit

Special topics in (a) the literature and film of Spain, Spanish-speaking Latin America, and U.S. Latina/o communities; (b) Spanish linguistics; and (c) Spanish, Latin American, and U.S. Latino cultural studies. Each topic will be announced when the course is offered.

Contact department for information to register for this course.

SPAN408M **Special Topics in Iberian and Latin American Studies; Filth and Literature in the Hispanic Caribbean-A Contemporary Introduction**

Credits: 3

Grading Method: Regular, Pass-Fail, Audit

Special topics in (a) the literature and film of Spain, Spanish-speaking Latin America, and U.S. Latina/o communities; (b) Spanish linguistics; and (c) Spanish, Latin American, and U.S. Latino cultural studies. Each topic will be announced when the course is offered.

This course will discuss literary, musical, and theoretical texts which represent the complex relationship between bodily and sensorial excess and aesthetic representation in the contemporary Hispanic Caribbean. Certain Caribbean texts and performances have been censored for supposedly being foul, dirty, obscene, for inducing corruption in the minds of its readers or showing a distorted image of their communities. The frontiers between order and disorder, purity and dirtiness are always historical and a matter of agitated and nuanced discussions. Subjectivity and sensibility are locations marked by issues of race, class, power, and gender. The course will explore some of the most important contemporary interventions around sex, language, and corporeality in the Hispanic Caribbean, from literary texts, vedette's performances, salsa lyrics, and cultural stereotypes to reggaeton or trap, amongt others. Taught in Spanish. Note: This course contains images and words that some people may find disturbing. Student/adult discretion is advised.

0101	Juan Carlos Quintero-Herencia	Seats (Total: 25)
	TuTh 12:30pm - 1:45pm	JMZ 2207

SPAN408N **Special Topics in Iberian and Latin American Studies; Love, Science, Religion and the Pursuit of Criollo Independeence in 18th-Century Mexico**

Credits: 3

Grading Method: Regular, Pass-Fail, Audit

Special topics in (a) the literature and film of Spain, Spanish-speaking Latin America, and U.S. Latina/o communities; (b) Spanish linguistics; and (c) Spanish, Latin American, and U.S. Latino cultural studies. Each topic will be announced when the course is offered.

Contact department for information to register for this course.

SPAN408Y **Special Topics in Iberian and Latin American Studies; Contemporary Spanish Short Story**

Credits: 3

Grading Method: Regular, Pass-Fail, Audit

Special topics in (a) the literature and film of Spain, Spanish-speaking Latin America, and U.S. Latina/o communities; (b) Spanish linguistics; and (c) Spanish, Latin American, and U.S. Latino cultural studies. Each topic will be announced when the course is offered.

Contact department for information to register for this course.

SPAN408Z **Special Topics in Iberian and Latin American Studies; 20th Century Contemporary Latin American Cinema**

Credits: 3

Grading Method: Regular, Pass-Fail, Audit

Special topics in (a) the literature and film of Spain, Spanish-speaking Latin America, and U.S. Latina/o communities; (b) Spanish linguistics; and (c) Spanish, Latin American, and U.S. Latino cultural studies. Each topic will be announced when the course is offered.

Contact department for information to register for this course.

SPAN409C **Great Themes of the Hispanic Literatures**

Credits: 3

Grading Method: Regular, Pass-Fail, Audit

Pervading themes in the literature of Spain or Spanish-America. Each theme will be announced when the course is offered.

Contact department for information to register for this course.

SPAN409F **Great Themes of the Hispanic Literatures; Literary Myths and Philosophy in the European Tradition**

Credits: 3

Grading Method: Regular, Pass-Fail, Audit

Pervading themes in the literature of Spain or Spanish-America. Each theme will be announced when the course is offered.

Contact department for information to register for this course.

SPAN409M **Great Themes of the Hispanic Literatures; Contemporary Spain through Spanish Cinema**

Credits: 3

Grading Method: Regular, Pass-Fail, Audit

Pervading themes in the literature of Spain or Spanish-America. Each theme will be announced when the course is offered.

Contact department for information to register for this course.

SPAN409N **Great Themes of the Hispanic Literatures; 20th Century Spanish History and Cinema**

Credits: 3

Grading Method: Regular, Pass-Fail, Audit

Pervading themes in the literature of Spain or Spanish-America. Each theme will be announced when the course is offered.

Contact department for information to register for this course.

SPAN409O **Great Themes of the Hispanic Literatures; Images of Spain in Contemporary Cinema**

Credits: 3

Grading Method: Regular, Pass-Fail, Audit

Pervading themes in the literature of Spain or Spanish-America. Each theme will be announced when the course is offered.

Contact department for information to register for this course.

SPAN409W **Great Themes of the Hispanic Literatures; Women Writers of Spain**

Credits: 3

Grading Method: Regular, Pass-Fail, Audit

Pervading themes in the literature of Spain or Spanish-America. Each theme will be announced when the course is offered.

Contact department for information to register for this course.

SPAN409Y **Great Themes of the Hispanic Literatures; Filmmaking in Spain**

Credits: 3

Grading Method: Regular, Pass-Fail, Audit

Pervading themes in the literature of Spain or Spanish-America. Each theme will be announced when the course is offered.

Contact department for information to register for this course.

SPAN409Z **Great Themes of the Hispanic Literatures; Spanish Film and Theatre**

Credits: 3

Grading Method: Regular, Pass-Fail, Audit

Pervading themes in the literature of Spain or Spanish-America. Each theme will be announced when the course is offered.

Contact department for information to register for this course.

SPAN422 **Intercultural Communication and Negotiation**

Credits: 3

Grading Method: Regular, Pass-Fail, Audit

General Education: DVCC

Prerequisite: SPAN370 OR SPAN371 OR SPAN373 OR SPAN 374. Restriction: Junior standing or higher.

Focuses on the relationship of language and culture of those operating in world markets. Particular attention will be given to intercultural communication, linguistic systems, culture specific perceptions of, and negotiation with, the Spanish-speaking world. Taught in Spanish.

Contact department for information to register for this course.

SPAN426 **Hispanic Linguistics III: Language in Use**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Prerequisite: SPAN303; and SPAN311 or SPAN316 or SPAN325. Also offered as: SPAN626. Credit only granted for: SPAN426 or SPAN626.

Designed for students without previous experience in Linguistics. Focus on language variation and use, linguistic change, and bilingualism. Taught in Spanish.

0101	Manel Lacorte	Seats (Total: 20)
	MW 3:00pm - 4:15pm	JMZ 2123

SPAN430 **Cervantes: Don Quijote**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Prerequisite: SPAN333, SPAN361, SPAN331, SPAN332, SPAN362, or SPAN363.

Contact department for information to register for this course.

SPAN449A **Special Topics in Spanish Civilization; Spanish Civilization**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

An intensive study of a selected topic related to Spanish civilization.

Contact department for information to register for this course.

SPAN449B **Special Topics in Spanish Civilization; Spanish Society**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

An intensive study of a selected topic related to Spanish civilization.

SA18	Natalie Brady	Seats (Total: 0)
	Contact instructor or department for details.	

SPAN449C **Special Topics in Spanish Civilization; History of Spain II: 20th Century**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

An intensive study of a selected topic related to Spanish civilization.

Contact department for information to register for this course.

SPAN449J **Special Topics in Spanish Civilization; Mosaic: Jews, Muslims and the Spanish Experience**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

An intensive study of a selected topic related to Spanish civilization.

Contact department for information to register for this course.

SPAN449M **Special Topics in Spanish Civilization; Barcelona and Madrid: Contemporary Film and Theatre**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

An intensive study of a selected topic related to Spanish civilization.

Contact department for information to register for this course.

SPAN449Q **Special Topics in Spanish Civilization; 20th Century History of Spain and the Basque Country**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

An intensive study of a selected topic related to Spanish civilization.

Contact department for information to register for this course.

SPAN449Z **Special Topics in Spanish Civilization; Literature and Cinema in the Contemporary City**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

An intensive study of a selected topic related to Spanish civilization.

Contact department for information to register for this course.

SPAN462 **Twentieth Century Drama**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Prerequisite: SPAN333, SPAN361, SPAN331, SPAN332, SPAN362, or SPAN363.

Significant plays of the twentieth century.

Contact department for information to register for this course.

SPAN464 **Contemporary Spanish Poetry**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Prerequisite: SPAN333, SPAN361, SPAN331, SPAN332, SPAN362, or SPAN363.

Spanish poetry from the generation of 1927 to the present.

Contact department for information to register for this course.

SPAN466 **The Contemporary Spanish Novel**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Prerequisite: SPAN333, SPAN361, SPAN331, SPAN332, SPAN362, or SPAN363.

The novel and the short story from 1940 to the present.

Contact department for information to register for this course.

SPAN469A **Study Abroad Special Topics IV; Advanced Topics in Spanish Language**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Special topics course taken as part of an approved study abroad program.

Contact department for information to register for this course.

SPAN469C **Study Abroad Special Topics IV; Composition**

Credits: 1 Grading Method: Regular, Pass-Fail, Audit

Special topics course taken as part of an approved study abroad program.

Contact department for information to register for this course.

SPAN470 **Spanish for Business II**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Prerequisite: Must have completed SPAN370. Restriction: Sophomore standing or higher. Credit only granted for: SPAN415 or SPAN470. Formerly: SPAN415.

Business Spanish terminology, vocabulary and practices. Emphasis on everyday spoken and written Spanish. Readings and discussions of international topics. Cross-cultural considerations relative to international business operations, including exporting and banking. Taught in Spanish.

0201	Lisa Carney	Seats (Total: 20)
	MWF 11:00am - 11:50am	JMZ 1120

SPAN479 **Honors Thesis**

(Perm req)

Credits: 3-6

Grading Method: Regular, Pass-Fail, Audit

Researching and writing an honors thesis under the direction of a professor.

Contact department for information to register for this course.

SPAN495 **Honors Reading**

Credits: 3

Grading Method: Regular, Pass-Fail, Audit

Prerequisite: Must be in Spanish and Portuguese Honors; or permission of ARHU-School of Languages, Literatures, and Cultures department.

Supervised reading.

Contact department for information to register for this course.

SPAN699 **Independent Study in Spanish**

Credits: 1-3

Grading Method: Regular, Audit, Sat-Fail

This course is designed to provide graduate students an opportunity to pursue independent study under the supervision of a member of the department.

Contact department for information to register for this course.

SPAN798K **Open Seminar; The Polemics of Possession in the Early Modern Hispanic Atlantic**

Credits: 3

Grading Method: Regular, Audit, Sat-Fail

This course will explore the "polemics of possession" as proposed by Rolena Adorno; that is the search for territorial, political, cultural or literary authority. Texts will be study taking into consideration themoment of production but also theorizations within Latin American Colonial and Transatlantic Studies.

0101	Eyda Merediz	Seats (Total: 10)
	Tu 5:00pm - 7:30pm	JMZ 3203

SPAN798P **Open Seminar; Spanish Civil War Chasms**

Credits: 3

Grading Method: Regular, Audit, Sat-Fail

This seminar will attempt to evaluate an ample variety of texts dealing with the Spanish Civil War cataclysm and its aftermath. Analysis and critique on diverse reflections and representations of the causes, variations, and readings of the conflict through multiple formats (literature, film, essay, photography, comic books, etc). Focuses on the uses and abuses of memory as a cultural and differing tool. Taught in Spanish.

0101	Jose Naharro-Calderon	Seats (Total: 10)
	W 5:00pm - 7:30pm	JMZ 2117

SPAN798Q **Open Seminar; Towards a Theory of Writing: A Reading Machine**

Credits: 3 Grading Method: Regular, Audit, Sat-Fail

This seminar proposes to inscribe a textual montage or a reading that would allow us to reflect on writing as a theory and as a practice. By playing with the materiality of language, this course will rethink, once again, the very scope of representation, the limits of referentiality, and the place of fiction. In other words, the seminar will articulate a theory of writing as a reading machine to critically reflect on words and things. Taught in Spanish.

0101	Laura Demaria	Seats (Total: 10)
	Th 5:00pm - 7:30pm	JMZ 1103

SPAN799 **Master's Thesis Research**

Credits: 1-6 Grading Method: Sat-Fail

Contact department for information to register for this course.

SPAN898 **Pre-Candidacy Research**

Credits: 1-8 Grading Method: Regular, Sat-Fail

Contact department for information to register for this course.

SPAN899 **Doctoral Dissertation Research**

(Perm req)

Credits: 6 Grading Method: Sat-Fail

Contact department for information to register for this course.

SPHL Public Health Spring 2020

SPHL100 **Foundations of Public Health**

Credits: 3 Grading Method: Regular, Pass-Fail

Restriction: Must be in a major in SPHL-School of Public Health. Credit only granted for: SPHL100, PHSC300 or SPHL600.

An overview of the goals, functions, and methods of public health. After an introduction to the core concepts and tools used in public health research and practice, applications of these methodologies are considered in the context of current controversies/problems in public health. Students work together to develop strategies for prevention and control that take into consideration different points of view, outside research, and impacts on individuals and communities.

0101	Sylvette La Touche-Howard MW 12:00pm - 12:50pm F 8:00am - 8:50am	Seats (Total: 20) ESJ 0224 SPH 0305	Discussion
0102	Sylvette La Touche-Howard MW 12:00pm - 12:50pm F 9:00am - 9:50am	Seats (Total: 20) ESJ 0224 SPH 0305	Discussion
0103	Sylvette La Touche-Howard MW 12:00pm - 12:50pm F 10:00am - 10:50am	Seats (Total: 20) ESJ 0224 SPH 0308	Discussion
0104	Sylvette La Touche-Howard MW 12:00pm - 12:50pm F 11:00am - 11:50am	Seats (Total: 20) ESJ 0224 SPH 0308	Discussion
0105	Sylvette La Touche-Howard MW 12:00pm - 12:50pm F 12:00pm - 12:50pm	Seats (Total: 20) ESJ 0224 SPH 0308	Discussion
0106	Sylvette La Touche-Howard MW 12:00pm - 12:50pm F 1:00pm - 1:50pm	Seats (Total: 20) ESJ 0224 SPH 0308	Discussion
0107	Sylvette La Touche-Howard MW 12:00pm - 12:50pm F 2:00pm - 2:50pm	Seats (Total: 20) ESJ 0224 SPH 0308	Discussion
0108	Sylvette La Touche-Howard MW 12:00pm - 12:50pm F 3:00pm - 3:50pm	Seats (Total: 20) ESJ 0224 SPH 0308	Discussion

0109	Sylvette La Touche-Howard MW 12:00pm - 12:50pm F 11:00am - 11:50am	Seats (Total: 20) ESJ 0224 SPH 0302	Discussion
0110	Sylvette La Touche-Howard MW 12:00pm - 12:50pm F 12:00pm - 12:50pm	Seats (Total: 20) ESJ 0224 SPH 0302	Discussion
0201	Sylvette La Touche-Howard MW 2:00pm - 2:50pm F 8:00am - 8:50am	Seats (Total: 20) SKN 0200 SPH 0307	Discussion
0202	Sylvette La Touche-Howard MW 2:00pm - 2:50pm F 9:00am - 9:50am	Seats (Total: 20) SKN 0200 SPH 0307	Discussion
0203	Sylvette La Touche-Howard MW 2:00pm - 2:50pm F 10:00am - 10:50am	Seats (Total: 20) SKN 0200 SPH 0307	Discussion
0204	Sylvette La Touche-Howard MW 2:00pm - 2:50pm F 11:00am - 11:50am	Seats (Total: 20) SKN 0200 SPH 0307	Discussion
0205	Sylvette La Touche-Howard MW 2:00pm - 2:50pm F 12:00pm - 12:50pm	Seats (Total: 20) SKN 0200 SPH 0307	Discussion
0206	Sylvette La Touche-Howard MW 2:00pm - 2:50pm F 1:00pm - 1:50pm	Seats (Total: 20) SKN 0200 SPH 0307	Discussion
0207	Sylvette La Touche-Howard MW 2:00pm - 2:50pm F 2:00pm - 2:50pm	Seats (Total: 20) SKN 0200 SPH 0307	Discussion
0208	Sylvette La Touche-Howard MW 2:00pm - 2:50pm F 3:00pm - 3:50pm	Seats (Total: 20) SKN 0200 SPH 0307	Discussion

0209	Sylvette La Touche-Howard MW 2:00pm - 2:50pm F 10:00am - 10:50am	Seats (Total: 20) SKN 0200 SPH 0305	 Discussion
0210	Sylvette La Touche-Howard MW 2:00pm - 2:50pm F 11:00am - 11:50am	Seats (Total: 20) SKN 0200 SPH 0305	 Discussion

SPHL260 **Public Health Without Borders: Designing Culturally Competent Global Projects**

Credits: 3 | Grading Method: Regular, Pass-Fail | General Education: DSSP, DVCC

The skills learned in this course are intended to engage students in critical thinking prior to a study abroad, global health project, or other international service experience in such a way that adds depth for the student and minimizes unintended negative consequences for local communities. The course is designed in three parts to prepare students to think critically about reciprocity in international service projects and develop scholarship in practice. Community members are viewed as partners, educators, and trusted advisors. Furthermore, since global health projects begin long before the plane lands, money is exchanged, and the first of many plastic bottles of water is purchased, the course begins with broad definitions of key concepts to heighten awareness of unintended consequences of well-meaning volunteers, then leads students through reflection and writing to apply these concepts and provides opportunity to integrate key concepts into plans for projects that serve global communities with cultural competence. Students will explore the needs of global communities, design interventions, and reflect on the potential outcomes in improving health in the communities served, while also focusing on their own subjective experience.

0101	Elisabeth Maring W 5:00pm - 6:15pm Class time/details on ELMs	Seats (Total: 30) SPH 0121 ONLINE	 Discussion

SPHL291 **Can we move beyond medication? Examining yoga, mindfulness and other nontraditional practices for health and wellbeing**

Credits: 3 | Grading Method: Regular, Pass-Fail, Audit

Recommended: Successful completion of English composition course.

Does yoga improve the health of wounded warriors and/or breast cancer survivors? Can mindfulness enhance your business success and family relationships, or is it social media hype? Do you know what reflexology is, and does it help reduce your personal stress level? Increasing numbers of people are using nutritional supplements, meditation, yoga and other forms of exercise, acupuncture and experiences in nature to reduce stress levels and improve overall health and well-being. In the media, scientists to celebrities have alternately endorsed or rejected claims about how these and other nontraditional health practices benefit health and well-being. Students will sample some of these nontraditional health practices and explore whether these practices can enhance their own well-being. General scientific methods for health research will be introduced and students will use this knowledge to evaluate the existing scientific research on these practices. Students will also evaluate whether popular and media translation of scientific research on these practices is fact-based.

Students will need to bring and show their University ID in order to enter Eppley Recreation Center for Thursday class

0101	Robin Puett Tu 9:30am - 10:45am Th 9:30am - 10:45am	Seats (Total: 30) ATL 1114 ERC B0158

SPHL333 **Fundamentals of Undergraduate Teaching for Education Assistants and Mentors (UTEAM)**

(Perm req)

Credits: 1 Grading Method: Regular, Pass-Fail

Corequisite: This course must be taken concurrently with SPHL389 the first term in which a student is a UTA. Restriction: This course is restricted to undergraduate students enrolled in an SPHL major.

Supports the professional and personal development of UG students in the UTEAM program. Must be completed concurrently with the first semester of providing UTEAM support to a specific course.UTEAM members are dedicated student learners who provide peer education support for specific course as part of the teaching team and emphasizes: 1) introduction to teaching, learning, literature and practice, 2) collaboration with other UTEAM members, faculty and staff as a learning community, and 3) reflection on the knowledge and skills developed through course participation.

0101	Cynthia Kershaw Class time/details on ELMs	Seats (Total: 15) ONLINE

SPHL399 **Academic Peer Teaching and Mentoring in Public Health**

Credits: 1-3 Grading Method: Regular, Pass-Fail

An independent study course for the Undergraduate Teaching and Mentoring (UTEAM) program within the School of Public Health. Students will apply evidence-based research while assisting peers with the understanding and application of course content. Specific responsibilities may vary dependent upon the course instructor. The primary roles of the UTEAM members will be to provide in-class support and/or external course support through review sessions, discussions sessions, laboratory support, group tutoring and office hours.

0101	Jeffrey Beans Contact instructor or department for details.	Seats (Total: 4)
0102	Steven Prior Contact instructor or department for details.	Seats (Total: 4)
0201	Kendall Bustad Contact instructor or department for details.	Seats (Total: 4)
0202	Jessica O'Hara Contact instructor or department for details.	Seats (Total: 4)
0203	Neil Sehgal Contact instructor or department for details.	Seats (Total: 4)
0204	Sandra Saperstein Contact instructor or department for details.	Seats (Total: 4)
0205	James Butler Contact instructor or department for details.	Seats (Total: 4)
0301	Kerry Tripp Contact instructor or department for details.	Seats (Total: 4)
0302	Robin Puett Contact instructor or department for details.	Seats (Total: 4)
0303	Edmond Shenassa Contact instructor or department for details.	Seats (Total: 4)
0304	Amy Lewin Contact instructor or department for details.	Seats (Total: 4)
0401	Sylvette La Touche-Howard Contact instructor or department for details.	Seats (Total: 4)
0402	Instructor: TBA Contact instructor or department for details.	Seats (Total: 4)

0501	Tia Cunningham	Seats (Total: 4)	
	Contact instructor or department for details.		

SPHL600 **Foundations of Public Health**

Credits: 3 Grading Method: Regular, Sat-Fail

Restriction: Must be a graduate student within the School of Public Health. Credit only granted for: SPHL100, PHSC300 or SPHL600.

An overview of the goals, functions, and methods of public health. After an introduction to the core concepts and tools used in public health research and practice, applications of these methodologies are considered in the context of current controversies/problems in public health. Students work together to develop strategies for prevention and control that taken into consideration different points of view, outside research, and impacts on individuals and communities.

0101	Sylvette La Touche-Howard	Seats (Total: 20)	
	Class time/details on ELMs	ONLINE	
	Th 3:00pm - 4:00pm	SPH 0227	Discussion

SPHL610 **Program and Policy Planning, Implementation, and Evaluation**

Credits: 5 Grading Method: Regular, Audit, Sat-Fail

Recommended: Completion of SPHL 601, 602, and 603 with a grade of B- or better in each. Note that completion of SPHL 601, 602, and 603 with a B- or better is a graduation requirement for the MPH/MHA degrees; and concurrent enrollment in SPHL 611. Restriction: Must be in a graduate student in SPHL-School of Public Health.

This second course in the MPH/MHA integrated core sequence will prepare students to engage in the important tasks of assessing population and patient needs, implementing and evaluating culturally appropriate public health programs, policies, and interventions, and pursuing appropriate resources to support activities through the policy process and via effective use of power in the face of competing interests. The course will be a mix of individual and team-based assignments based upon an existing or newly identified problem, in addition to case studies, interactive simulations, and applied writing assignments.

0101	Robert Gold	Seats (Total: 20)	
	MW 4:15pm - 6:15pm	ESJ 1215	
	W 6:30pm - 7:30pm	ESJ 1215	Discussion
0102	Robert Gold	Seats (Total: 20)	
	MW 4:15pm - 6:15pm	ESJ 1215	
	W 7:30pm - 8:30pm	ESJ 1215	Discussion

0103	Robert Gold MW 4:15pm - 6:15pm W 6:30pm - 7:30pm	Seats (Total: 19) ESJ 1215 ESJ 1215	 Discussion
0104	Robert Gold MW 4:15pm - 6:15pm W 7:30pm - 8:30pm	Seats (Total: 19) ESJ 1215 ESJ 1215	 Discussion
PLB1	Instructor: TBA Class time/details on ELMs *Must be in online Behavioral and Community Health Program. For permission to enroll, contact oes@umd.edu.*	Seats (Total: 20) ONLINE	
PLH1	Priscilla Novak, Steven Ault Class time/details on ELMs *Restricted to students in the Master of Public Health Practice and Policy and Graduate Certificate in Principles of Public Health programs.*	Seats (Total: 32) ONLINE	
PLPB	Priscilla Novak, Steven Ault Class time/details on ELMs *Must be in Graduate Certificate in Principles of Public Health Program. For permission to enroll, contact oes@umd.edu.*	Seats (Total: 10) ONLINE	

SPHL611 **Public Health Ethics**

Credits: 1 Grading Method: Regular, Audit, Sat-Fail

Prerequisite: Must have completed SPHL601; or permission of instructor. Restriction: Must be a graduate student in the School of Public Health. Credit only granted for: EPIB641, KNES689Y, or SPHL611.. Formerly: EPIB641, KNES689Y.

Overview and discussion of ethical issues that face public health practitioners.

0101	Craig Fryer **Meets January 27, 2020 - March 13, 2020** M 6:30pm - 8:30pm	Seats (Total: 35) SPH 1301	
0201	Craig Fryer **Meets March 23, 2020 - May 12, 2020** M 6:30pm - 8:30pm	Seats (Total: 35) SPH 1301	

PLH1	Evelyn King-Marshall	Seats (Total: 32)
	Meets January 27, 2020 - March 13, 2020	
	Class time/details on ELMs	ONLINE
	Restricted to students in the Master of Public Health Practice and Policy and Graduate Certificate in Principles of Public Health programs.	
PLPB	Evelyn King-Marshall	Seats (Total: 10)
	Meets January 27, 2020 - March 13, 2020	
	Class time/details on ELMs	ONLINE
	Must be in Graduate Certificate in Principles of Public Health Program. For permission to enroll, contact oes@umd.edu.	

SPHL612 **Research Ethics**

Credits: 1 Grading Method: Regular, Audit, Sat-Fail

Restriction: Must be a graduate student in the School of Public Health. Credit only granted for: EPIB641, KNES689Y or SPHL612. Formerly: EPIB641, KNES689Y.

Overview and discussion of ethical issues that face public health researchers.

0101	Stephen Roth	Seats (Total: 25)
	Meets March 23, 2020 - May 12, 2020	
	F 9:00am - 10:50am	SPH 1302

STAT Statistics and Probability Spring 2020

STAT100 **Elementary Statistics and Probability**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit CORE: MS General Education: FSAR, FSMA

Prerequisite: MATH110, MATH112, MATH113, or MATH115; or permission of CMNS-Mathematics department; or must have math eligibility of STAT100 or higher and math eligibility is based on the Math Placement Exam or the successful completion of Math 003 with appropriate eligibility. Restriction: Must not have completed MATH111; or must not have completed any MATH or STAT course with a prerequisite of MATH141. Credit only granted for: STAT100, MATH107 or MATH111.

Simplest tests of statistical hypotheses; applications to before-and-after and matched pair studies. Events, probability, combinations, independence. Binomial probabilities, confidence limits. Random variables, expected values, median, variance. Tests based on ranks. Law of large numbers, normal approximation. Estimates of mean and variance.

0111	Matthew Griffin MWF 12:00pm - 12:50pm M 8:00am - 9:15am	Seats (Total: 30) ESJ 0202 PHY 4206	Discussion
0112	Matthew Griffin MWF 12:00pm - 12:50pm M 9:30am - 10:45am	Seats (Total: 30) ESJ 0202 PHY 4206	Discussion
0121	Matthew Griffin MWF 12:00pm - 12:50pm Tu 8:00am - 9:15am	Seats (Total: 30) ESJ 0202 PHY 4206	Discussion
0122	Matthew Griffin MWF 12:00pm - 12:50pm Tu 9:30am - 10:45am	Seats (Total: 30) ESJ 0202 PHY 4206	Discussion
0123	Matthew Griffin MWF 12:00pm - 12:50pm Tu 11:00am - 12:15pm	Seats (Total: 30) ESJ 0202 PHY 4206	Discussion
0124	Matthew Griffin MWF 12:00pm - 12:50pm Tu 12:30pm - 1:45pm	Seats (Total: 30) ESJ 0202 PHY 4206	Discussion
0131	Matthew Griffin MWF 12:00pm - 12:50pm W 8:00am - 9:15am	Seats (Total: 30) ESJ 0202 PHY 4206	Discussion
0132	Matthew Griffin MWF 12:00pm - 12:50pm W 9:30am - 10:45am	Seats (Total: 30) ESJ 0202 PHY 4206	Discussion
0141	Matthew Griffin MWF 12:00pm - 12:50pm Th 8:00am - 9:15am	Seats (Total: 30) ESJ 0202 PHY 4206	Discussion
0142	Matthew Griffin MWF 12:00pm - 12:50pm Th 9:30am - 10:45am	Seats (Total: 30) ESJ 0202 PHY 4206	Discussion

0211	Susan Mazzullo MWF 2:00pm - 2:50pm M 8:00am - 9:15am	Seats (Total: 30) ESJ 0202 PHY 4206	Discussion
0212	Susan Mazzullo MWF 2:00pm - 2:50pm M 9:30am - 10:45am	Seats (Total: 30) ESJ 0202 PHY 4206	Discussion
0213	Susan Mazzullo MWF 2:00pm - 2:50pm M 11:00am - 12:15pm	Seats (Total: 30) ESJ 0202 PHY 4206	Discussion
0214	Susan Mazzullo MWF 2:00pm - 2:50pm M 12:30pm - 1:45pm	Seats (Total: 30) ESJ 0202 PHY 4206	Discussion
0221	Susan Mazzullo MWF 2:00pm - 2:50pm Tu 8:00am - 9:15am	Seats (Total: 30) ESJ 0202 PHY 4206	Discussion
0223	Susan Mazzullo MWF 2:00pm - 2:50pm Tu 11:00am - 12:15pm	Seats (Total: 30) ESJ 0202 PHY 4206	Discussion
0311	Matthew Griffin MWF 3:00pm - 3:50pm M 11:00am - 12:15pm	Seats (Total: 30) ESJ 0202 PHY 4206	Discussion
0321	Matthew Griffin MWF 3:00pm - 3:50pm W 8:00am - 9:15am	Seats (Total: 30) ESJ 0202 PHY 4206	Discussion
0323	Matthew Griffin MWF 3:00pm - 3:50pm W 11:00am - 12:15pm	Seats (Total: 30) ESJ 0202 PHY 4206	Discussion
0331	Matthew Griffin MWF 3:00pm - 3:50pm Th 8:00am - 9:15am	Seats (Total: 30) ESJ 0202 PHY 4206	Discussion

STAT386 Experiential Learning

(Perm req) Credits: 3-6 Grading Method: Regular, Pass-Fail

Prerequisite: Must have learning proposal approved by the CMNS-Mathematics Department.

Contact department for information to register for this course.

STAT400 **Applied Probability and Statistics I**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Prerequisite: 1 course with a minimum grade of C- from (MATH131, MATH141); or students who have taken courses with comparable content may contact the department. Credit only granted for: BMGT231, ENEE324, or STAT400. Additional information: Not acceptable toward graduate degrees in MATH/STAT/AMSC.

Random variables, standard distributions, moments, law of large numbers and central limit theorem. Sampling methods, estimation of parameters, testing of hypotheses.

0111	Hatice Sahinoglu MWF 10:00am - 10:50am Tu 8:00am - 8:50am	Seats (Total: 27) PHY 1412 MTH 0201	Discussion
0112	Hatice Sahinoglu MWF 10:00am - 10:50am Tu 8:00am - 8:50am	Seats (Total: 27) PHY 1412 MTH 0106	Discussion
0121	Hatice Sahinoglu MWF 10:00am - 10:50am Tu 9:00am - 9:50am	Seats (Total: 27) PHY 1412 MTH 0201	Discussion
0122	Hatice Sahinoglu MWF 10:00am - 10:50am Tu 9:00am - 9:50am	Seats (Total: 27) PHY 1412 MTH 0106	Discussion
0123	Hatice Sahinoglu MWF 10:00am - 10:50am Tu 9:00am - 9:50am	Seats (Total: 27) PHY 1412 MTH 0402	Discussion
0131	Hatice Sahinoglu MWF 10:00am - 10:50am Tu 10:00am - 10:50am	Seats (Total: 27) PHY 1412 MTH 0201	Discussion

0132	Hatice Sahinoglu MWF 10:00am - 10:50am Tu 10:00am - 10:50am	Seats (Total: 27) PHY 1412 MTH 0106	 Discussion
0141	Hatice Sahinoglu MWF 10:00am - 10:50am Tu 11:00am - 11:50am	Seats (Total: 27) PHY 1412 CHM 1228	 Discussion
0142	Hatice Sahinoglu MWF 10:00am - 10:50am Tu 12:00pm - 12:50pm	Seats (Total: 27) PHY 1412 CHM 1228	 Discussion
0211	Guangyu Xi MWF 11:00am - 11:50am Th 8:00am - 8:50am	Seats (Total: 27) ARM 0131 MTH 0201	 Discussion
0212	Guangyu Xi MWF 11:00am - 11:50am Th 8:00am - 8:50am	Seats (Total: 27) ARM 0131 MTH 0106	 Discussion
0221	Guangyu Xi MWF 11:00am - 11:50am Th 9:00am - 9:50am	Seats (Total: 27) ARM 0131 MTH 0201	 Discussion
0222	Guangyu Xi MWF 11:00am - 11:50am Th 9:00am - 9:50am	Seats (Total: 27) ARM 0131 MTH 0106	 Discussion
0223	Guangyu Xi MWF 11:00am - 11:50am Th 9:00am - 9:50am	Seats (Total: 27) ARM 0131 MTH 0402	 Discussion
0231	Guangyu Xi MWF 11:00am - 11:50am Th 10:00am - 10:50am	Seats (Total: 27) ARM 0131 MTH 0201	 Discussion
0232	Guangyu Xi MWF 11:00am - 11:50am Th 10:00am - 10:50am	Seats (Total: 27) ARM 0131 MTH 0106	 Discussion

0241	Guangyu Xi MWF 11:00am - 11:50am Th 11:00am - 11:50am	Seats (Total: 27) ARM 0131 CHM 1228	Discussion
0242	Guangyu Xi MWF 11:00am - 11:50am Th 12:00pm - 12:50pm	Seats (Total: 27) ARM 0131 CHM 1228	Discussion
0311	Scott Preston TuTh 11:00am - 12:15pm F 8:00am - 8:50am	Seats (Total: 27) ARM 0126 MTH 0101	Discussion
0312	Scott Preston TuTh 11:00am - 12:15pm F 8:00am - 8:50am	Seats (Total: 27) ARM 0126 MTH 0303	Discussion
0321	Scott Preston TuTh 11:00am - 12:15pm F 9:00am - 9:50am	Seats (Total: 27) ARM 0126 MTH 0101	Discussion
0322	Scott Preston TuTh 11:00am - 12:15pm F 9:00am - 9:50am	Seats (Total: 27) ARM 0126 MTH 0303	Discussion
0323	Scott Preston TuTh 11:00am - 12:15pm F 9:00am - 9:50am	Seats (Total: 27) ARM 0126 MTH 0104	Discussion
0331	Scott Preston TuTh 11:00am - 12:15pm F 10:00am - 10:50am	Seats (Total: 27) ARM 0126 MTH 0101	Discussion
0332	Scott Preston TuTh 11:00am - 12:15pm F 10:00am - 10:50am	Seats (Total: 27) ARM 0126 MTH 0303	Discussion
0341	Scott Preston TuTh 11:00am - 12:15pm F 11:00am - 11:50am	Seats (Total: 27) ARM 0126 MTH 0101	Discussion

0342	Scott Preston TuTh 11:00am - 12:15pm F 11:00am - 11:50am	Seats (Total: 27) ARM 0126 MTH 0303	Discussion

STAT401 **Applied Probability and Statistics II**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Prerequisite: 1 course with a minimum grade of C- from (STAT400, STAT410). Additional information: Not acceptable toward graduate degrees in MATH/STAT/AMSC.

Point estimation - unbiased and consistent estimators. Interval estimation. Minimum variance and maximum likelihood estimators. Testing of hypotheses. Regression, correlation and analysis of variance. Sampling distributions. Elements of non-parametric methods.

0111	Susan Mazzullo MWF 12:00pm - 12:50pm Tu 8:00am - 8:50am	Seats (Total: 30) CHE 2108 CHE 2136	Discussion
0112	Susan Mazzullo MWF 12:00pm - 12:50pm Tu 9:00am - 9:50am	Seats (Total: 30) CHE 2108 CHE 2136	Discussion
0113	Susan Mazzullo MWF 12:00pm - 12:50pm Tu 10:00am - 10:50am	Seats (Total: 30) CHE 2108 CHE 2136	Discussion
0201	Archana Khurana MWF 10:00am - 10:50am	Seats (Total: 30) MTH 0201	
0301	Hatice Sahinoglu MWF 11:00am - 11:50am	Seats (Total: 28) MTH 0201	
0501	Jonathan Fernandes MWF 1:00pm - 1:50pm	Seats (Total: 28) MTH 0305	
0601	Jonathan Fernandes TuTh 12:30pm - 1:45pm	Seats (Total: 25) MTH 1308	
0701	Casey Cremins TuTh 9:30am - 10:45am	Seats (Total: 28) CHM 0128	

STAT410 **Introduction to Probability Theory**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Prerequisite: 1 course with a minimum grade of C- from (MATH240, MATH461, MATH341); and 1 course with a minimum grade of C- from (MATH340, MATH241). Cross-listed with SURV410. Credit only granted for: STAT410 or SURV410.

Probability and its properties. Random variables and distribution functions in one and several dimensions. Moments. Characteristic functions. Limit theorems.

0101	Leonid Koralov MWF 2:00pm - 2:50pm	Seats (Total: 30) MTH 0303
0201	Archana Khurana MWF 3:00pm - 3:50pm	Seats (Total: 30) MTH 0303
0301	Scott Preston TuTh 9:30am - 10:45am	Seats (Total: 30) EGR 1104
0401	Mark Freidlin TuTh 11:00am - 12:15pm	Seats (Total: 30) MTH 0304
0501	Vadim Kaloshin TuTh 12:30pm - 1:45pm	Seats (Total: 30) EGR 0135
0601	Scott Preston TuTh 2:00pm - 3:15pm	Seats (Total: 30) EGR 2116

STAT420 **Theory and Methods of Statistics**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Prerequisite: 1 course with a minimum grade of C- from (SURV410, STAT410). Cross-listed with SURV420. Credit only granted for: STAT420 or SURV420.

Point estimation, sufficiency, completeness, Cramer-Rao inequality, maximum likelihood. Confidence intervals for parameters of normal distribution. Hypothesis testing, most powerful tests, likelihood ratio tests. Chi-square tests, analysis of variance, regression, correlation. Nonparametric methods.

Offered Spring only.

0101	Takumi Saegusa TuTh 11:00am - 12:15pm	Seats (Total: 33) PLS 1113

0201	Jian Lun Xu TuTh 5:00pm - 6:15pm	Seats (Total: 33) MTH 0304

STAT426 **Introduction to Data Science and Machine Learning**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Prerequisite: Minimum grade of C- in MATH241 or MATH340; and minimum grade of C- in MATH240, MATH461 or MATH341; and minimum grade of C- in STAT400 or STAT410; students who have taken courses with content comparable to STAT400/410 may request permission of the instructor. Credit only granted for: STAT426 or CMSC320.

An introductory course to the recent developments in the fields of data science and machine learning. Emphasis will be given to mathematical and statistical understanding of commonly used methods and processes.

0101	Vincent Lyzinski MWF 1:00pm - 1:50pm	Seats (Total: 32) MTH B0421

STAT430 **Introduction to Statistical Computing with SAS**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Prerequisite: 1 course with a minimum grade of C- from (STAT400, STAT410).

Descriptive and inferential statistics. SAS software: numerical and graphical data summaries; merging, sorting and splitting data sets. Least squares, regression, graphics and informal diagnostics, interpreting results. Categorical data, lifetime data, time series. Applications to engineering, life science, business and social science.

0101	Susan Mazzullo MWF 10:00am - 10:50am	Seats (Total: 32) ATL 1114
0201	Timothy Pilachowski MWF 11:00am - 11:50am	Seats (Total: 32) CHM 1224
0301	Gustavo Varela Alvarenga TuTh 3:30pm - 4:45pm	Seats (Total: 32) MTH 0201
0401	Christine Nickel TuTh 5:00pm - 6:15pm	Seats (Total: 32) MTH B0421

0501	Ayushi Saxena MWF 10:00am - 10:50am	Seats (Total: 30) MTH 0302

STAT440 **Sampling Theory**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Prerequisite: 1 course with a minimum grade of C- from (STAT401, STAT420). Credit only granted for: STAT440 or SURV440.

Simple random sampling. Sampling for proportions. Estimation of sample size. Sampling with varying probabilities. Sampling: stratified, systematic, cluster, double, sequential, incomplete.

0101	Natalia Tchetcherina MWF 10:00am - 10:50am	Seats (Total: 32) MTH 0103
0201	Natalia Tchetcherina MWF 11:00am - 11:50am	Seats (Total: 32) MTH 0103

STAT464 **Introduction to Biostatistics**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Prerequisite: Must have completed one semester of calculus. Restriction: Junior standing or higher. Credit only granted for: BIOE372 or STAT464. Additional information: Not acceptable toward degrees in MATH/STAT.

Probabilistic models. Sampling. Some applications of probability in genetics. Experimental designs. Estimation of effects of treatments. Comparative experiments. Fisher-Irwin test. Wilcoxon tests for paired comparisons.

0101	Raluca Rosca MWF 11:00am - 11:50am	Seats (Total: 25) MTH 1313
0201	Hatice Sahinoglu MWF 1:00pm - 1:50pm	Seats (Total: 25) MTH 1313

STAT470 **Actuarial Mathematics**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Prerequisite: 1 course with a minimum grade of C- from (MATH240, MATH461, MATH341); and 1 course with a minimum grade of C- from (MATH340, MATH241). Recommended: STAT400.

Major mathematical ideas involved in calculation of life insurance premiums, including compound interest and present valuation of future income streams; probability distribution and expected values derived from life tables; the interpolation of probability distributions from values estimated at one-year multiples; the 'Law of Large Numbers' describing the regular probabilistic behavior of large populations of independent individuals; and the detailed calculation of expected present values arising in insurance problems.

0101	Matthew Griffin	Seats (Total: 40)
	MWF 2:00pm - 2:50pm	ITV 1100

STAT498 **Selected Topics in Statistics**

Credits: 1-6 Grading Method: Regular, Pass-Fail, Audit

Topics of special interest to advanced undergraduate students will be offered occasionally under the general guidance of the MATH/STAT major committee. Students register for reading in statistics under this number.

Contact department for information to register for this course.

STAT498A **Selected Topics in Statistics**

(Perm req)

Credits: 1-6 Grading Method: Regular, Pass-Fail, Audit

Topics of special interest to advanced undergraduate students will be offered occasionally under the general guidance of the MATH/STAT major committee. Students register for reading in statistics under this number.

Contact department for information to register for this course.

STAT601 **Probability Theory II**

Credits: 3 Grading Method: Regular, Audit, Sat-Fail

Prerequisite: STAT600.

Weak convergence of measures; characteristic functions; Central Limit Theorem and local limit theorem; stable laws; Kolmogorov consistency theorem (without proof); conditional expectations and martingales; optimal stopping theorem; convergence of martingales; Brownian motion; Markov processes and families; stochastic integral and Ito formula.

Offered Spring only.

0101	Sandra Cerrai	Seats (Total: 18)
	TuTh 11:00am - 12:15pm	MTH B0431

STAT650 **Applied Stochastic Processes**

Credits: 3 Grading Method: Regular, Audit, Sat-Fail

Prerequisite: STAT410; or students who have taken courses with comparable content may contact the department.

Basic concepts of stochastic processes. Markov processes (discrete and continuous parameters), Random walks, Poisson processes, Birth and death processes. Renewal processes and basic limit theorems. Discrete time martingales, stopping times, optional sampling theorem. Applications from theories of stochastic epidemics, survival analysis and others.

0101	Eric Slud	Seats (Total: 30)
	MW 5:00pm - 6:15pm	MTH 0103

STAT689 **Research Interactions in Statistics**

(Perm req)

Credits: 1-3 Grading Method: Regular, Audit, Sat-Fail

The students participate in a vertically integrated (undergraduate, graduate and/or postdoctoral, faculty) research group. Format varies, but includes regular meetings, readings and presentations of material. See graduate program's online syllabus or contact the graduate program director for more information.

Contact department for information to register for this course.

STAT701 **Mathematical Statistics II**

Credits: 3 Grading Method: Regular, Audit, Sat-Fail

Prerequisite: STAT700; or students who have taken courses with comparable content may contact the department.

Testing hypotheses: parametric methods. Neyman-Pearson lemma. Uniformly most powerful tests. Unbiased tests. Locally optimal tests. Large sample theory, asymptotically best procedures. Nonparametric methods, Wilcoxon, Fisher-Yates, median tests. Linear models, analysis of variance, regression and correlation. Sequential analysis.

Offered Spring only.

0101	Joan Ren	Seats (Total: 20)
	TuTh 9:30am - 10:45am	MTH 1311

STAT730 **Time Series Analysis**

Credits: 3 Grading Method: Regular, Audit, Sat-Fail

Prerequisite: STAT700; and must have completed a graduate course in analysis. Or permission of instructor. Recommended: STAT701 and STAT650.

The methodology of probabilistic description and statistical analysis of (primarily stationary) random sequences and processes. Correlation functions, Gaussian processes, Hilbert-space methods including Wold decomposition and spectral representation, periodogram and estimation of spectral densities, parameter estimation and model identification for ARMA processes, linear filtering, Kalman-Bucy filtering, sampling theorems for continuous-time series, multivariate time series.

0101	Benjamin Kedem	Seats (Total: 20)
	MWF 11:00am - 11:50am	MTH 1311

STAT741 **Linear Statistical Models II**

Credits: 3 Grading Method: Regular, Audit, Sat-Fail

Prerequisite: STAT740.

Continuation of STAT 740. Multiway layouts, incomplete designs, Latin squares, complete and fractional factorial designs, crossed and nested models. Balanced random effects models, mixed models, repeated measures.General mixed model, computational algorithms, ML and REML estimates. Generalized linear models, logistic and loglinear regression.

Offered Spring only.

0101	Paul Smith	Seats (Total: 20)
	MWF 2:00pm - 2:50pm	MTH 0106

STAT799 **Master's Thesis Research**

Credits: 1-6 Grading Method: Sat-Fail

Contact department for information to register for this course.

STAT808A **Selected Topics in Probability**

Credits: 1-3 Grading Method: Regular, Audit, Sat-Fail

Advanced topics of current interest.

Contact department for information to register for this course.

STAT818A **Selected Topics in Statistics**

Credits: 1-3 Grading Method: Regular, Audit, Sat-Fail

Advanced topics of current interest.

Contact department for information to register for this course.

STAT818B **Selected Topics in Statistics; Bayesian Statistical Analysis**

Credits: 3 Grading Method: Regular, Audit, Sat-Fail

Advanced topics of current interest.

0101	Partha Lahiri	Seats (Total: 20)
	MW 3:00pm - 4:30pm	MTH 0102

STAT818N **Selected Topics in Statistics; Nonparametric Regression**

Credits: 3 Grading Method: Regular, Audit, Sat-Fail

Advanced topics of current interest.

0101	Takumi Saegusa	Seats (Total: 20)
	TuTh 2:00pm - 3:15pm	MTH 0409

STAT898 **Pre-Candidacy Research**

Credits: 1-8 Grading Method: Regular, Sat-Fail

Contact department for information to register for this course.

STAT899 **Doctoral Dissertation Research**

(Perm req)

Credits: 6 Grading Method: Sat-Fail

Contact department for information to register for this course.

SURV Survey Methodology Spring 2020

SURV400 **Fundamentals of Survey and Data Science**

(Perm req)

Credits: 3 Grading Method: Regular, Pass-Fail

Prerequisite: STAT100; or permission of BSOS-Joint Program in Survey Methodology department. Restriction: Course open to SURV certificate students, SURV Advanced Special Students, and SURV undergraduate minors. Graduate students from other departments may enroll with permission from the department. Credit only granted for: SURV699M or SURV400. Formerly: SURV699M.

The course introduces the student to a set of principles of survey and data science that are the basis of standard practices in these fields. The course exposes the student to key terminology and concepts of collecting and analyzing data from surveys and other data sources to gain insights and to test hypotheses about the nature of human and social behavior and interaction. It will also present a framework that will allow the student to evaluate the influence of different error sources on the quality of data.

SVW1	Ashley Amaya **Meets February 4, 2020 - April 28, 2020** Tu 8:00am - 9:00am Contact instructor or department for details. *Students must have access to a standalone web camera and a headset to participate in the weekly online meetings.*	Seats (Total: 8) ONLINE

SURV410 Introduction to Probability Theory

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Prerequisite: MATH240, MATH341, or MATH461; and (MATH241 or MATH340). Cross-listed with STAT410. Credit only granted for: STAT410 or SURV410.

Probability and its properties. Random variables and distribution functions in one and several dimensions. Moments. Characteristic functions. Limit theorems.

0101	Leonid Koralov MWF 2:00pm - 2:50pm	Seats (Total: 30) MTH 0303
0201	Archana Khurana MWF 3:00pm - 3:50pm	Seats (Total: 30) MTH 0303
0301	Scott Preston TuTh 9:30am - 10:45am	Seats (Total: 30) EGR 1104
0501	Vadim Kaloshin TuTh 12:30pm - 1:45pm	Seats (Total: 30) EGR 0135
0601	Scott Preston TuTh 2:00pm - 3:15pm	Seats (Total: 30) EGR 2116

SURV420 **Theory and Methods of Statistics**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Prerequisite: SURV410 or STAT410. Cross-listed with STAT420. Credit only granted for: STAT420 or SURV420.

Point estimation, sufficiency, completeness, Cramer-Rao inequality, maximum likelihood. Confidence intervals for parameters of normal distribution. Hypothesis testing, most powerful tests, likelihood ratio tests. Chi-square tests, analysis of variance, regression, correlation. Nonparametric methods.

0101	Takumi Saegusa TuTh 11:00am - 12:15pm	Seats (Total: 33) PLS 1113
0201	Jian Lun Xu TuTh 5:00pm - 6:15pm	Seats (Total: 33) MTH 0304

SURV440 **Sampling Theory**

(Perm req)

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Prerequisite: STAT401 or STAT420. Credit only granted for: STAT440 or SURV440.

Simple random sampling, sampling for proportions, estimation of sample size, sampling with varying probabilities of selection, stratification, systematic selection, cluster sampling, double sampling, and sequential sampling.

0101	Walter Dempsey **Meets January 8, 2020 - April 21, 2020** MW 8:30am - 10:00am	Seats (Total: 15) LEF 1208

SURV616 **Statistical Modeling II**

(Perm req)

Credits: 3 Grading Method: Regular, Audit, Sat-Fail

Prerequisite: SURV615.

Builds on the introduction to linear models and data analysis provided in Statistical Methods I. Topics include analysis of longitudinal data and time series, categorical data analysis and contingency tables, logistic regression, log-linear models for counts, statistical methods in epidemiology, and introductory life testing.

0101	Taylor Lewis	Seats (Total: 20)
	Meets January 8, 2020 - April 21, 2020	
	W 5:00pm - 7:40pm	LEF 1208

SURV622 **Fundamentals of Data Collection II**

(Perm req)

Credits: 3 Grading Method: Regular, Audit, Sat-Fail

Prerequisite: Permission of Instructor required; or fundamentals of Data Collection I.

This is the second course in a two-semester sequence that provides a broad overview of the processes that generate data for use in social science research. Students will gain an understanding of different types of data and how they are created, as well as their relative strengths and weaknesses. A key distinction is drawn between data that are designed, primarily survey data, and those that are found, such as administrative records, remnants of online transactions, and social media content. The course combines lectures, supplemented with assigned readings, and practical exercises. The second semester builds on the discussion of survey mode during the first semester, considering the role played by interviewers in telephone and in-person surveys and their effects on the data collected. Students next are introduced to the methods for extracting and re purposing found data for social science research. Methods for the classification of text, with an emphasis on automated coding methods, are introduced and selected applications considered (e.g., coding of open-ended survey responses, classification of the sentiments expressed in social media posts). Issues in using survey data and administrative records to measure change over time (longitudinal comparisons) are explored. The term concludes with an examination of methods for evaluating the quality of both designed and found data.

0101	Christopher Antoun, Frederick Conrad, Brian Kim	Seats (Total: 25)
	Meets January 13, 2020 - April 20, 2020	
	M 3:30pm - 6:30pm	LEF 2208

SURV625 **Applied Sampling**

(Perm req)

Credits: 3 Grading Method: Regular, Audit, Sat-Fail

Prerequisite: Must have completed a course in statistics approved by department.

Practical aspects of sample design. Topics include: probability sampling (including simple random, systematic, stratified, clustered, multistage and two-phase sampling methods), sampling with probabilities proportional to size, area sampling, telephone sampling, ratio estimation, sampling error estimation, frame problems, nonresponse, and cost factors.

0101	Brady West, Yajuan Si	Seats (Total: 15)
	Meets January 8, 2020 - April 22, 2020	
	W 9:00am - 11:30am	LEF 2208

SURV630 **Questionnaire Design and Evaluation**

Credits: 3 Grading Method: Regular, Audit, Sat-Fail

Credit only granted for: SURV430 and SURV630.

The stages of questionnaire design; developmental interviewing, question writing, question evaluation, pretesting, and questionnaire ordering and formatting. Reviews of the literature on questionnaire construction, the experimental literature on question effects, and the psychological literature on information processing. Examination of the diverse challenges posed by self versus proxy reporting and special attention is paid to the relationship between mode of administration and questionnaire design.

0101	Ting Yan	Seats (Total: 15)
	Meets January 15, 2020 - April 21, 2020	
	Tu 1:00pm - 3:00pm Contact instructor or department for details.	LEF 1208

SURV631 **Questionnaire Design**

(Perm req)

Credits: 2 Grading Method: Regular, Sat-Fail

Restriction: Permission of BSOS-Joint Program in Survey Methodology department.

This course introduces students to the stages of questionnaire development. The course reviews the scientific literature on questionnaire construction, the experimental literature on question effects, and the psychological literature on information processing. It will also discuss the diverse challenges posed by self- versus proxy-reporting and special attention is paid to the relationship between mode of administration and questionnaire design. Students will also get hands-on experience in developing their own questionnaire.

SVW1	Gina Walejko	Seats (Total: 7)
	Meets January 16, 2020 - March 5, 2020	
	Th 8:00am - 9:00am Contact instructor or department for details.	ONLINE
	Students must have access to a standalone web camera and a headset to participate in the weekly online meetings.	

SURV635 **Usability Testing for Survey Research**

(Perm req)

Credits: 1

Grading Method: Regular,
Audit, Sat-Fail

Recommended: Students should be familiar with the basics of questionnaire design. Experience with cognitive testing is a plus, but not a requirement. Restriction: Must be in a major within the BSOS-Joint Program in Survey Methodology department; or permission of BSOS-Joint Program in Survey Methodology department.

Introduces the concepts of usability and usability testing and why they are needed for survey research. The course provides a theoretical model for understanding the respondent-survey interaction and then provides practical methods for incorporating iterative user-centered design and testing into the survey development process. The course provides techniques and examples for designing, planning, conducting and analyzing usability studies on web or mobile surveys

SVW1	Frauke Kreuter	Seats (Total: 8)
	Meets April 8, 2020 - April 29, 2020	
	W 8:00am - 9:00am	ONLINE
	Contact instructor or department for details.	
	Click here to apply for permission and to request a seat.	

SURV699 **Special Topics in Survey Methodology; Readings in Survey Methodology**

(Perm req)

Credits: 1-4

Grading Method: Regular,
Audit, Sat-Fail

Credit according to time scheduled and organization of the course. Organized as a lecture series on specialized advanced topics in survey methodology.

0101	Yan Li	Seats (Total: 10)
	Contact instructor or department for details.	

SURV699C **Special Topics in Survey Methodology; Big Data in Immigration Research**

Credits: 3

Grading Method: Regular,
Audit, Sat-Fail

Credit according to time scheduled and organization of the course. Organized as a lecture series on specialized advanced topics in survey methodology.

Prerequisites: At least one statistics course, basic familiarity with R, Python or SAS. Data from traditional sources (e.g., national population censuses, sample surveys, and administrative sources) on migration and immigration are limited in quantity and quality, and new alternatives have recently emerged. Some of these new types of "Big Data" are particularly promising for the study of migration-related phenomena. These include mobile phone call logs, Internet activity (e.g., Google searches, tracking of online media content use), geo-referenced social media activity, and other passively collected (mobile) data. This course is shared between the University of Maryland and University of Mannheim, and students will virtually attend the same class/lecture and then collaborate via online tools. Students from the two partnering universities will form international groups to collaboratively work on the collection and analysis of Big Data to answer immigration-related research questions.

0101	Christopher Antoun	Seats (Total: 12)
	Meets February 10, 2020 - May 11, 2020	
	M 11:15am - 12:45pm	LEF 1208
	Contact instructor or department for details.	

SURV699J **Special Topics in Survey Methodology; General Linear Models (G.L.M)**

(Perm req)

Credits: 2 Grading Method: Regular, Audit, Sat-Fail

Credit according to time scheduled and organization of the course. Organized as a lecture series on specialized advanced topics in survey methodology.

Prerequisite: A sound understanding of the linear regression models (OL S), knowledge in linear algebra and calculus is useful. The main focus lies on the introduction to statistical models and estim ators beyond linear regression useful to a social and economic scientis ts. The first two units are dedicated to an introduction to a maximum likelihood estimation while the rest of the units will discuss generali zed linear models (GLS) for binary choice decisions (Logit, Probit), or dinal dependent variables, and count data (Poisson, Negative Binomial).

SVW1	Thomas Gautschi	Seats (Total: 8)
	Meets February 27, 2020 - April 16, 2020	
	Th 2:00pm - 3:00pm	ONLINE
	Contact instructor or department for details.	
	Students must have access to a standalone web camera and a headset to participate in the weekly online meetings.	

SURV699N **Special Topics in Survey Methodology; Analysis of Complex Samples for Population Inference**

Credits: 3 Grading Method: Regular, Audit, Sat-Fail

Credit according to time scheduled and organization of the course. Organized as a lecture series on specialized advanced topics in survey methodology.

0101	Yan Li	Seats (Total: 20)
	Meets January 24, 2020 - May 12, 2020	
	F 1:00pm - 3:30pm	LEF 1208

SURV699Q **Special Topics in Survey Methodology; Web Survey Methodology**

Credits: 2 Grading Method: Regular, Audit, Sat-Fail

Credit according to time scheduled and organization of the course. Organized as a lecture series on specialized advanced topics in survey methodology.

Students must have access to a standalone web camera and a headset to participate in the weekly online meetings.

SVW1	Frauke Kreuter	Seats (Total: 8)
	Meets January 17, 2020 - March 6, 2020	
	F 8:00am - 8:50am Contact instructor or department for details.	ONLINE
	Students must have access to a standalone web camera and a headset to participate in the weekly online meetings.	

SURV699R **Special Topics in Survey Methodology; Design and Implementation of Web Surveys**

Credits: 3 Grading Method: Regular, Audit, Sat-Fail

Credit according to time scheduled and organization of the course. Organized as a lecture series on specialized advanced topics in survey methodology.

Cross-listed with INST408M. Credit only granted for INST408M or SURV699R. This is a hands-on course in which small groups of students will develop and deploy a web survey, collect and analyze data from actual respondents, and write a report suitable for a client. Lectures and class discussion will focus on the scientific literature in web survey methodology with a focus on practical implications.

0101	Frederick Conrad, Christopher Antoun	Seats (Total: 30)
	TuTh 4:00pm - 5:15pm	LEF 2208

SURV701 **Analysis of Complex Sample Data**

Credits: 3 Grading Method: Regular, Audit, Sat-Fail

Prerequisite: SURV625.

Analysis of data from complex sample designs covers: the development and handling of selection and other compensatory weights; methods for handling missing data; the effect of stratification and clustering on estimation and inference; alternative variance estimation procedures; methods for incorporating weights, stratification and clustering, and imputed values in estimation and inference procedures for complex sample survey data; and generalized design effects and variance functions. Computer software that takes account of complex sample design in estimation.

0101	Yan Li	Seats (Total: 15)
	Meets January 23, 2020 - May 9, 2020	
	Th 1:00pm - 3:45pm	LEF 2208

SURV704 **Computer-Based Content Analysis II**

(Perm req)

Credits: 1 Grading Method: Regular, Audit, Sat-Fail

Prerequisite: SURV703; and background knowledge in programming in Python and SQL structures. Recommended: SURV736.

Investigates the foundations of Natural Language Processing (NLP) as tool for analyzing natural language texts in the social sciences, thus providing an alternative to traditional ways of data generation through surveys. The course introduces general use cases for NLP, provides a guide to standard operations on text as well as their implementation in the Python-based Natural Language Toolkit (NLTK) and introduces the text mining functionalities of the WEKA Machine Learning workbench. The theory part of the course worth one credit can be supplemented by an optional project part worth another credit point

SVW1	Christoph Theil	Seats (Total: 8)
	Meets January 20, 2020 - February 10, 2020	
	M 12:00pm - 1:00pm Contact instructor or department for details.	ONLINE
	Students must have access to a standalone web camera and a headset to participate in the weekly online meetings.	

SURV721 **Total Survey Error and Data Quality II**

(Perm req)

Credits: 2 Grading Method: Regular, Audit, Sat-Fail

Prerequisite: SURV720. Restriction: Permission of instructor. Credit only granted for: (SURV720 and SURV721) or SURV723. Formerly: SURV723.

Second part of a review of total survey error structure of sample survey data. Reviewing current research findings on the magnitudes of different error sources. Students will continue work on an independent research project which provides empirical investigation of one or more error source. An analysis paper presenting findings of the project will be submitted at the end of the course.

0101	Sunghee Lee	Seats (Total: 20)
	Meets January 9, 2020 - April 21, 2020	
	Th 9:00am - 11:30am	LEF 1218

SURV726 **Multiple Imputation**

(Perm req)

Credits: 1 Grading Method: Regular, Audit, Sat-Fail

Prerequisite: Be comfortable with generalized linear models and basic probability theory through coursework or work experience; and familiarity with the statistical software R; and must have completed Surv 725 Item Nonresponse and Imputation or be familiar with the content through relevant work experience. Restriction: Permission of BSOS-Joint Program in Survey Methodology department.

This course will provide a detailed introduction to multiple imputation, a convenient strategy for dealing with (item) nonresponse in surveys. We will motivate the concept and illustrate why multiple imputation should generally be preferred over single imputation methods. The main focus of the course will be on strategies to generate (multiple) imputations and how to deal with common problems when applying the methods for large scale surveys. We will also discuss various options for assessing the quality of the imputations. All concepts will be demonstrated using software illustrations in R.

SVW1	Joerg Drechsler	Seats (Total: 8)
	Meets January 29, 2020 - February 19, 2020	
	W 2:00pm - 2:50pm Contact instructor or department for details.	ONLINE
	Students must have access to a standalone web camera and a headset to participate in the weekly online meetings.	

SURV727 **Fundamentals of Computing and Data Display**

Credits: 3 Grading Method: Regular, Audit, Sat-Fail

Restriction: Must be in a major within the BSOS-Joint Program in Survey Methodology department; or permission of BSOS-Joint Program in Survey Methodology department. Additional information: Students without any R knowledge are encouraged to work through one or more R web tutorials prior or during the first weeks of the course.

The first part of this course provides an introduction to web scraping and APIs for gathering data from the web and then discusses how to store and manage (big) data from diverse sources efficiently. The second part of the course demonstrates techniques for exploring and finding patterns in (non-standard) data, with a focus on data visualization. The course focuses on R as the primary computing environment, with excursus into SQL and Big Data processing tools.

Class will have two additional meetings (on a separate date) and two out-of-class meetings to be identified once classes begin.

0101	Christoph Kern	Seats (Total: 20)
	Meets February 13, 2020 - May 14, 2020	
	Th 9:30am - 12:00pm	LEF 2208
	Contact instructor or department for details.	

SURV735 **Data Confidentiality and Statistical Disclosure Control**

(Perm req)

Credits: 2 Grading Method: Regular, Audit, Sat-Fail

Prerequisite: Must have familiarity with the statistical software R; and must have completed a basic statistics course in regression modeling. Restriction: Permission of BSOS-Joint Program in Survey Methodology department.

This course will provide a gentle introduction to statistical disclosure control with a focus on generating synthetic data for maintaining the confidentiality of the survey respondents. The first part of the course will introduce several traditional approaches for data protection that are widely used at statistical agencies. Some limitations of these approaches will also be discussed. The second part of the course will introduce synthetic data as a possible alternative. This part of the course will discuss different approaches to generating synthetic datasets in detail. Possible modeling strategies and analytical validity evaluations will be assessed and potential measures to quantify the remaining risk of disclosure will be presented. To provide the participants with hands on experience, all steps will be illustrated using simulated and real data examples in R.

SVW1	Joerg Drechsler	Seats (Total: 15)
	Meets March 4, 2020 - April 29, 2020	
	W 2:00pm - 3:00pm	ONLINE
	Contact instructor or department for details.	
	Click here to apply for permission and to request a seat.	

SURV742 **Inference from Complex Surveys**

(Perm req)

Credits: 3 Grading Method: Regular, Audit, Sat-Fail

Prerequisite: SURV440.

Inference from complex sample survey data covering the theoretical and empirical properties of various variance estimation strategies (e.g., Taylor series approximation, replicated methods, and bootstrap methods for complex sample designs). Incorporation of those methods into inference for complex sample survey data. Variance estimation procedures applied to descriptive estimators and to analysis of categorical data. Generalized variances and design effects presented. Methods of model-based inference for complex sample surveys examined, and results contrasted to the design-based type of inference used as the standard in the course. Real survey data illustrating the methods discussed. Students will learn the use of computer software that takes account of the sample design in estimation.

0101	Robert Fay	Seats (Total: 20)
	Meets January 14, 2020 - April 16, 2020	
	Tu 1:00pm - 2:30pm	LEF 1218
	Contact instructor or department for details.	

SURV751 **Introduction to Big Data and Machine Learning**

(Perm req)

Credits: 1

Grading Method: Regular, Audit, Sat-Fail

Prerequisite: Familiarity with the statistical software R. Restriction: Permission of BSOS-Joint Program in Survey Methodology department. Additional information: Familiarity with model building and model selection as well as the R program is not required but could also be helpful. Students without prior knowledge in R should plan on using free online resources to make themselves familiar with the basics of this statistical programming language.

This is an introduction to the uses and methods of working with Big data. Students explore how Big Data concepts, processes and methods can be used within the context of Survey Research.

SVW1	Frauke Kreuter	Seats (Total: 8)
	Meets February 3, 2020 - February 24, 2020	
	M 1:00pm - 2:00pm	ONLINE
	Contact instructor or department for details.	
	Click here to apply for permission and to request a seat.	

SURV752 **Introduction to Data Visualization**

(Perm req)

Credits: 1

Grading Method: Regular, Audit, Sat-Fail

Prerequisite: Basic statistics understanding and bivariate linear regression. Recommended: Experience in the use of statistical software package R. Restriction: Permission of BSOS-Joint Program in Survey Methodology department.

Data visualization is one of the most powerful tools to explore, understand and communicate patterns in quantitative information. At the same time, good data visualization is a surprisingly difficult task and demands three quite different skills: substantive knowledge, statistical skill, and artistic sense. The course is intended to introduce participants to a) key principles of analytic design and useful visualization techniques for the exploration and presentation of univariate and multivariate data. This course is highly applied in nature and emphasizes the practical aspects of data visualization in the social sciences. Students will learn how to evaluate data visualizations based on principles of analytic design, how to construct compelling visualizations using the free statistics software R, and how to explore and present their data with visual methods.

SVW1	Richard Tranmueller **Meets April 6, 2020 - April 28, 2020** Tu 12:00pm - 1:00pm Contact instructor or department for details. *Click here to apply for permission and to request a seat.*	Seats (Total: 8) ONLINE
SVW2	Richard Tranmueller **Meets April 6, 2020 - April 29, 2020** W 12:00pm - 1:00pm Contact instructor or department for details. *Click here to apply for permission and to request a seat.*	Seats (Total: 10) ONLINE

SURV772 **Survey Design Seminar**

Credits: 3 Grading Method: Regular, Audit, Sat-Fail

Credit only granted for: (SURV770 and SURV771) or SURV772. Formerly: SURV770 and SURV771.

Students present solutions to design issues presented to the seminar. Readings are selected from literatures not treated in other classes and practical consulting problems are addressed.

0101	James Lepkowski, Michael Tragoutt **Meets January 14, 2020 - April 21, 2020** Tu 10:00am - 12:45pm	Seats (Total: 10) LEF 1218

SURV798B **Advanced Topics in Survey Methodology; Small Area Estimation**

Credits: 3 Grading Method: Regular, Sat-Fail

Individual instruction.

Prerequisite: STAT420/SURV420 or equvialent; or permission of instructor. Model-based small-area estimation has portance oer the past two decades. Students will learn the state-of-the-art model-based small-area estimation methods (e.g., empirical best prediction, empirical Bayes andhierarchical Bayes, etc.) and the associated important issues regarding measures of uncertainty, model selection, model diagnostics, design-consistency, etc. The bootstrap, jackknife, and delta methods will be discussed in details in the context of measuring uncertainty of EB/EBP. In order to explain certain concepts, it will be necessary to gothrough a few derivations. Data analyses using several real life examples will be presented. Application of SAS and BUGS in certain small-area data analyses will be shown. The course includes practical exercises.

0101	Partha Lahiri	Seats (Total: 15)
	Tu 9:30am - 12:00pm	LEF 2208

SURV829 **Doctoral Research Seminar in Survey Methodology**

(Perm req)

Credits: 3-6 Grading Method: Sat-Fail

An advanced research seminar for students preparing to do research or take doctoral comprehensive examinations.

0101	Katharine Abraham, Brady West	Seats (Total: 10)
	Meets January 8, 2020 - April 21, 2020	
	W 2:00pm - 4:30pm	LEF 1218

SURV898 **Pre-Candidacy Research**

Credits: 1-8 Grading Method: Regular, Sat-Fail

Contact department for information to register for this course.

SURV899 **Doctoral Dissertation Research**

(Perm req)

Credits: 6 Grading Method: Sat-Fail

Contact department for information to register for this course.

TDPS Theatre, Dance and Performance Studies Spring 2020

TDPS201 **Introduction to Technical Production**

(Perm req)

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Restriction: Must be in a major within the ARHU-Dance department; or must be in a major within the ARHU-Theatre department. Credit only granted for: DANC210 and THET114 or TDPS201. Formerly: DANC210 and THET114.

Students are provided with an overview of topics related to the technical production of theatre and dance including: scenic, prop and costume construction, lighting, sound and video execution and management structures.

Students must pay a $25 lab fee.

5501	Michael Driggers	Seats (Total: 25)	
	MW 4:00pm - 4:50pm	PAC 1809	
	F 3:30pm - 5:30pm	PAC 1702	Lab

TDPS362 **Alexander Technique**

(Perm req)

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Prerequisite: THET222, THET116, THET223, and TDPS201; or (DANC218 and DANC219). And permission of ARHU-School of Theatre, Dance & Performance Studies department. Credit only granted for: THET399J, THET362 or TDPS362. Formerly: THET399J and THET362.

Based on the F.M. Alexander Technique, students will learn to recognize habit patterns that interfere with how they function and express themselves so that they can make conscious choices as a performing artist.

5501	Leslie Felbain	Seats (Total: 18)
	TuTh 9:30am - 11:20am	PAC 3736

TDPS458C **Special Topics in Advanced Performing Arts; Body, Space, and Objects**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Designed for performing arts students. Offers instruction at an advanced level in various aspects of performance such as Voice for the Performing Arts, Movement for the Performing Arts, Acting for the Performing Arts, Partner Dance and a myriad of specific aspects within these genres.

Prerequisites: THET222, TDPS201, and permission of instructor. Students must pay a $25 course fee. This advanced movement course will be built from an educational foundation about the human body. Following techniques of physical theatre and exploration of space and interaction with physical objects.

5501	Leslie Felbain	Seats (Total: 15)
	TuTh 1:30pm - 3:20pm	PAC 3736

TDPS458T **Special Topics in Advanced Performing Arts; Puppet Design and Performance**

(Perm req)

Credits: 3

Grading Method: Regular, Pass-Fail, Audit

Designed for performing arts students. Offers instruction at an advanced level in various aspects of performance such as Voice for the Performing Arts, Movement for the Performing Arts, Acting for the Performing Arts, Partner Dance and a myriad of specific aspects within these genres.

Students must pay a $25 course fee. Students will learn a variety of puppetry styles and building techniques with the goal of creating original performance pieces. We'll explore shadow puppetry, glove puppets, rod puppets, patterning from 3-D objects, automata, and more! Students will be expected to regularly create new, short-form puppetry pieces to share with the class.

5501	Robert Vernon M 10:00am - 12:50pm	Seats (Total: 15) PAC 3736

TDPS469 **Advanced Practicum in Stage Management**

(Perm req)

Credits: 1-3

Grading Method: Regular, Pass-Fail, Audit

A graded course in stage management for theatre and/or dance productions. A hands-on laboratory experience.

0101	Jennifer Schwartz Contact instructor or department for details.	Seats (Total: 10)

TDPS479 **Production Practicum**

(Perm req)

Credits: 1-3

Grading Method: Regular, Pass-Fail, Audit

A graded course in a specified practical aspect of mounting a theatre or dance production. It is a hands-on, purely laboratory experience.

Prerequisite: TDPS201. Formerly THET479. A specified practical aspect of mounting a theatre or dance production with hands-on, laboratory experience.

1001	Bobby Hunter Contact instructor or department for details.	Seats (Total: 15)
1002	Bobby Hunter Contact instructor or department for details.	Seats (Total: 15)
1003	Bobby Hunter Contact instructor or department for details.	Seats (Total: 15)

1004	Bobby Hunter Contact instructor or department for details.	Seats (Total: 15)
1005	Bobby Hunter Contact instructor or department for details.	Seats (Total: 15)
1006	Bobby Hunter Contact instructor or department for details.	Seats (Total: 15)
1007	Bobby Hunter Contact instructor or department for details.	Seats (Total: 15)
2001	Bobby Hunter Contact instructor or department for details.	Seats (Total: 15)
2002	Bobby Hunter Contact instructor or department for details.	Seats (Total: 15)
2003	Bobby Hunter Contact instructor or department for details.	Seats (Total: 15)
2004	Bobby Hunter Contact instructor or department for details.	Seats (Total: 15)
2005	Bobby Hunter Contact instructor or department for details.	Seats (Total: 15)
2006	Bobby Hunter Contact instructor or department for details.	Seats (Total: 15)

THET Theatre Spring 2020

THET110 **Introduction to the Theatre**

Credits: 3 | Grading Method: Regular, Pass-Fail, Audit | CORE: HA | General Education: DSHU

In the age of pop music and blockbuster films, of memes and viral videos, we often forget that theatre was one of the original forms of popular entertainment. We will focus on theatre practitioners including actors, directors, designers and backstage personnel to understand how theatre is produced. We will also consider popular entertainment in Europe and America, with a particular focus on musical theatre and Broadway to explore how theatre communicates, resonates, and remains relevant to all audiences.

0101	Caitlin Marshall MWF 11:00am - 11:50am	Seats (Total: 78) ESJ 2212

0102	Caitlin Marshall	Seats (Total: 120)	
	MWF 12:00pm - 12:50pm	ESJ 1202	

THET116 **Fundamentals of Theatrical Design**

(Perm req)

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Restriction: Permission of ARHU-School of Theatre, Dance & Performance Studies department.

Examines theatre as an environmental art that is realized through collaboration between set, costume, and lighting designers.

Students must pay a $25 lab fee.

5501	Ryan Fox, Jeremy Bennett	Seats (Total: 20)	
	TuTh 12:30pm - 2:20pm	PAC 2733	Lab

THET222 **Foundations of Acting and Performance**

(Perm req)

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Restriction: Permission of ARHU-School of Theatre, Dance & Performance Studies department.

Students will become familiar with the tools and process of acting through the discipline of acting exercises, analyzing character and performing. Students will research various theatre artists that have contributed to the acting process. Through monologue and scene work students will learn listening skills, communicative, collaborative and embodiment skills and will learn how to use the self in the imaginative process and research. And, most importantly, students will learn creative process through practice.

Students must pay a $25 lab fee. THET222 is for new Theatre majors only. Non-Theatre majors must attend the first day of class for permission to add

5502	Jennifer Newsham	Seats (Total: 16)	
	TuTh 2:00pm - 3:50pm	PAC 3732	Lab

THET223 **Text and Context in Western Theatre**

(Perm req)

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Restriction: Permission of ARHU-School of Theatre, Dance & Performance Studies department.

Introduction to the analysis and critique of the play script. Students will have the opportunity to read, analyze, and interpret western dramatic literature from a range of periods and styles. Texts are analyzed from a variety of theatrical analytical perspectives, with an eye towards choices theatre artists must make in the creation of a theatrical production.

0101	Allison Hedges	Seats (Total: 15)
	MW 12:30pm - 1:45pm	PAC 1809

THET251 **Broadway Mashup: Remixing America Through Musical Theater**

Credits: 3 | Grading Method: Regular, Pass-Fail | General Education: DSHU, DVUP, SCIS

Interrogate musical theater's political history, investigating how this uniquely American genre uses narrative, song, and dance to weave critical differences across race, ethnicity, immigration status, religion, gender, sexuality, and ability into our national fabric.

0101	Caitlin Marshall	Seats (Total: 60)
	TuTh 11:00am - 12:15pm	TYD 2106

THET269B **Special Topics in Study Abroad II**

Credits: 1-6 | Grading Method: Regular, Pass-Fail, Audit

Special topics course taken as part of an approved study abroad program.

Contact department for information to register for this course.

THET269T **Special Topics in Study Abroad II; 20th Century and Contemporary Spanish Theater**

Credits: 3 | Grading Method: Regular, Pass-Fail, Audit

Special topics course taken as part of an approved study abroad program.

Contact department for information to register for this course.

THET285 **The Art of Communication and Presentation**

Credits: 3 | Grading Method: Regular, Pass-Fail, Audit | General Education: FSOC

Credit only granted for: COMM107, COMM200, INAG110, JOUR130, or THET285.

An introduction to the fundamental practice and theory of public speaking and oral communication using theatrical techniques of both performance and the craft of storytelling.

0101	Tara Demmy MW 12:00pm - 1:50pm	Seats (Total: 25) PAC 3732
0103	Kelley Holley TuTh 12:00pm - 1:50pm	Seats (Total: 25) PAC 3732

THET294 **Black Theatre and Performance II**

Credits: 3 | Grading Method: Regular, Pass-Fail | CORE: HA, D | General Education: DSHU, DVUP

Restriction: Sophomore standing or higher.

Thematic and historical survey of African-American drama from the 1960s to the present. Emphasis on sociopolitical context, thematic thrust, issues, styles, the aesthetic reflected in the work, impact on African-American and general theatre audiences.

0101	Jordan Ealey TuTh 12:30pm - 1:45pm	Seats (Total: 20) PAC 1809

THET299L **Independent Study; Analyzing Performances**

Credits: 3 | Grading Method: Regular, Pass-Fail, Audit

An independent study in which each student completes an assigned major theatre project under close faculty supervision. Projects may culminate with term papers; scenic, lighting, or costume designs; or a stage production.

Contact department for information to register for this course.

THET299Z **Independent Study; Issues of Realism**

Credits: 3 | Grading Method: Regular, Pass-Fail, Audit

An independent study in which each student completes an assigned major theatre project under close faculty supervision. Projects may culminate with term papers; scenic, lighting, or costume designs; or a stage production.

Contact department for information to register for this course.

THET310 **Voice for the Actor I**

(Perm req)

Credits: 3 | Grading Method: Regular, Pass-Fail, Audit

Prerequisite: THET116, THET222, THET223, and TDPS201; and must Interview; and permission of ARHU-School of Theatre, Dance & Performance Studies department. Restriction: Sophomore standing or higher.

Freeing the natural voice. In-depth experience of connection of actor's voice to thought, impulse and emotion. Tools for releasing tension, increasing resonance and range, and refining articulation will be explored.

Students must pay a $25 lab fee.

5501	Leigh Smiley	Seats (Total: 18)	
	TuTh 9:30am - 11:20am	PAC 2740	Lab

THET326 **Viewpoints**

(Perm req)

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Prerequisite: THET222, THET223, THET116, and TDPS201; and permission of ARHU-School of Theatre, Dance & Performance Studies department. Credit only granted for: THET328V or THET326. Formerly: THET328V.

Viewpoints is a movement-based performance course for students who already have a foundation in the basics of acting and/or dance. The Viewpoints are a set of tools and vocabulary; using 9 categories of time and space, students will fully explore the possibilities of using their physical instruments (the body) to their fullest on stage.

Students must pay a $25 lab fee.

5501	Jennifer Newsham	Seats (Total: 20)	
	MW 1:00pm - 2:50pm	PAC 2740	Lab

THET369X **Special Topics in Study Abroad III; Fourth-Year French II**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Special topics course taken as part of an approved study abroad program.

Contact department for information to register for this course.

THET377 **Lighting Design I**

(Perm req)

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Prerequisite: THET222, THET223, and THET116. And THET114; or TDPS201; or permission of ARHU-School of Theatre, Dance & Performance Studies department.

A study of the theories of electrification, instruments, design, color, and control for the stage. Practical work on productions.

Students must pay a $25 lab fee.

5501	Michael Winston, Lauren Gallup MW 10:00am - 11:50am	Seats (Total: 10) PAC 2733	Lab

THET383 **Costume Design I**

(Perm req)

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Prerequisite: TDPS201 or THET114; and (THET116, THET222, and THET223). Or permission of ARHU-School of Theatre, Dance & Performance Studies department.

Basic principles of theatre costume design and introduction to rendering skills. Emphasis on development of design conception, unity, character statement, basic clothing design and period style adaptation.

5501	Helen Huang Tu 2:00pm - 4:30pm	Seats (Total: 8) PAC 2755

THET386 **Experiential Learning**

(Perm req)

Credits: 3-6 Grading Method: Regular, Pass-Fail

Restriction: Junior standing or higher; and permission of ARHU-School of Theatre, Dance & Performance Studies department.

0801	Leslie Felbain Contact instructor or department for details.	Seats (Total: 1)
2003	Jennifer Schwartz Contact instructor or department for details.	Seats (Total: 5)

THET391 **Theatre History II**

(Perm req)

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Prerequisite: Permission of ARHU-School of Theatre, Dance & Performance Studies department.

The history of Western theatre from the mid seventeenth century to the early twentieth century, with emphasis on plays and playwrights, architecture and decor, acting and costuming, and significant personalities. Includes explorations of interrelationships between Western theatre and the theatre of other cultures.

0101	Faedra Carpenter TuTh 9:30am - 10:45am	Seats (Total: 25) PAC 1809
0102	Kioumars Mazandarani Haeri MW 11:00am - 12:15pm	Seats (Total: 20) PAC 1809

THET399 **Independent Study**

Credits: 1-3 Grading Method: Regular, Pass-Fail, Audit

An independent study in which each student completes an assigned major theatre project under close faculty supervision. Projects may culminate in term papers, scenic; lighting, or costume designs; or a stage production.

0101	Susan Miller Contact instructor or department for details.	Seats (Total: 3)
0401	Scot Reese Contact instructor or department for details.	Seats (Total: 1)
0501	Melissa Blanco Borelli Contact instructor or department for details.	Seats (Total: 5)
0701	Jennifer Newsham Contact instructor or department for details.	Seats (Total: 5)
2007	Jared Mezzocchi Contact instructor or department for details.	Seats (Total: 5)

THET399F **Independent Study; Modern British Theater**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

An independent study in which each student completes an assigned major theatre project under close faculty supervision. Projects may culminate in term papers, scenic; lighting, or costume designs; or a stage production.

Contact department for information to register for this course.

THET399H **Independent Study; London Stage**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

An independent study in which each student completes an assigned major theatre project under close faculty supervision. Projects may culminate in term papers, scenic; lighting, or costume designs; or a stage production.

Contact department for information to register for this course.

THET399L **Independent Study; Contemporary British Drama**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

An independent study in which each student completes an assigned major theatre project under close faculty supervision. Projects may culminate in term papers, scenic; lighting, or costume designs; or a stage production.

Contact department for information to register for this course.

THET399X **Independent Study; The London Stage**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

An independent study in which each student completes an assigned major theatre project under close faculty supervision. Projects may culminate in term papers, scenic; lighting, or costume designs; or a stage production.

Contact department for information to register for this course.

THET408D **Seminar: Theory and Performance Studies; Dramaturgy**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Studies in theatre theory and performance studies from classical antiquity to the present.

0101	Faedra Carpenter	Seats (Total: 10)
	W 12:00pm - 2:30pm	PAC 1815

THET408E **Seminar: Theory and Performance Studies; Black Women Playwrights**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Studies in theatre theory and performance studies from classical antiquity to the present.

0101	Gianina Lockley	Seats (Total: 15)
	TuTh 12:30pm - 1:45pm	PAC 1815

THET408L **Seminar: Theory and Performance Studies; Performativity of Law and Justice**

Credits: 3

Grading Method: Regular, Pass-Fail, Audit

Studies in theatre theory and performance studies from classical antiquity to the present.

Crosslisted with ANTH468V. Credit only granted for THET408L or ANTH468V. Law is theatre, sport, and business. True stories are creatively told to select audiences and stakes are high. This class will explore the performances and performative power of courtroom trials and testimony, as well as offstage legal culture. We will examine notions of truth, evidence, reason, and justice, and will analyze examples from both the everyday and the sensational.

0101	Laurie Frederik	Seats (Total: 15)
	TuTh 11:00am - 12:15pm	PAC 1809

THET408O **Seminar: Theory and Performance Studies; Body in/as Performance**

Credits: 3

Grading Method: Regular, Pass-Fail, Audit

Studies in theatre theory and performance studies from classical antiquity to the present.

This class examines how bodies both make and represent culture. We will pay particular attention to the notion of the body and its attendant signifiers of race, class, gender, nation and sexuality among others. We will traverse through different theoretical realms to offer support for a view of the body as flesh and bone, but also as a socio-historical construction replete with contingent meanings. Dance, theatre, film, visual culture and performance art will provide the context of where andhow bodies perform. Ultimately, you will think about how your own body signifies on and off stage and what its cultural specificities operate within the world and its complicated ideologies. No dance or theatre experience required but willingness to experiment with your bodys performance capabilities is encouraged.

0101	Melissa Blanco Borelli	Seats (Total: 15)
	MW 2:00pm - 3:15pm	PAC 1809

THET408T **Seminar: Theory and Performance Studies; A Giant Trigger Warning: Terror, Trauma, and Contemporary Performance**

Credits: 3

Grading Method: Regular, Pass-Fail, Audit

Studies in theatre theory and performance studies from classical antiquity to the present.

0101	Leslie Gray	Seats (Total: 15)
	MW 9:30am - 10:45am	PAC 1809

THET420 **Language and the Actor**

(Perm req)

Credits: 3

Grading Method: Regular, Pass-Fail, Audit

Prerequisite: THET325 or THET324; and must audition; and permission of ARHU-School of Theatre, Dance & Performance Studies department.

Explores the actor's relationship to language, particularly heightened poetic language, in order to: develop the ability to embody language and vocally and physically project the images; apply an intellectual understanding of the inherent structural, poetic, and rhetorical techniques of heightened language in combination with action theory; and access the inner states of character while expressing them through text.

5501	Leigh Smiley	Seats (Total: 2)
	M 2:00pm - 4:50pm	PAC 3732

THET428M **Special Topics in Advanced Theatre and Performance; Advanced Media Design: Public Projections**

Credits: 3

Grading Method: Regular, Pass-Fail

This course is offered as part of the School of Theatre, Dance, and Performance Studies' Artist in Residence program. Topics covered may include: Intercultural Theatre; Performance Art; Puppetry; Solo Performance; or Theatrical Design.

5501	Jared Mezzocchi	Seats (Total: 5)
	F 9:00am - 12:00pm	PAC 2727

THET428Q **Special Topics in Advanced Theatre and Performance; Technologies of Japanese Performance**

Credits: 1-3

Grading Method: Regular, Pass-Fail

This course is offered as part of the School of Theatre, Dance, and Performance Studies' Artist in Residence program. Topics covered may include: Intercultural Theatre; Performance Art; Puppetry; Solo Performance; or Theatrical Design.

Crosslisted with JAPN498P. Credit only granted for THET428Q or JAPN498P. This course explores technologies of performance in Japan across the centuries. We will focus on concepts of likeness and liveness as they manifest in performances of mythical origins, the traditions of noh drama, the popular, commercial theatres of kabuki and bunraku, and contemporary experiments with robotics, Vocaloids, and other new technology. Taught in English

0101	Jyana Browne	Seats (Total: 30)
	TuTh 11:00am - 12:15pm	JMZ 0125

THET429 **Actor's Studio**

(Perm req)

Credits: 1-3 Grading Method: Regular, Pass-Fail

Participation in dramatic roles executed under faculty supervision in the department's productions. Eligible students must make commitments and plan performances with course instructor during pre-registration.

Contact department for information to register for this course.

THET440 **Advanced Playwriting**

(Perm req)

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Prerequisite: THET340; or permission of instructor. And permission of ARHU-School of Theatre, Dance & Performance Studies department. Restriction: Permission of ARHU-School of Theatre, Dance & Performance Studies department. Credit only granted for: THET440 or THET499P. Formerly: THET499P.

Ensemble-based writer's workshop. It is the second part of a two-course sequence and is designed for students who already have a foundation in the basics of playwriting or who are other wise well-versed in the art of theatre and dramatic structure. Through exploratory writing sequences, the reading of full-length plays, and in-class readings of work-in-progress, students will continue to deepen their craft and develop the script for a new full-length play.

Students must pay a $25 lab fee.

5501	Jennifer Newsham	Seats (Total: 12)
	MW 10:00am - 11:50am	PAC 1815

THET452 **Musical Theatre Workshop II**

(Perm req)

Credits: 3 Grading Method: Regular, Pass-Fail

Prerequisite: Must audition. Restriction: Permission of ARHU-School of Theatre, Dance & Performance Studies department.

Development of the ability to move, act and express through the media of lyric and music from the integrated musicals of the 1960s through the development of concert and rock/pop musicals.

5501	Scot Reese	Seats (Total: 12)	
	Th 1:30pm - 4:30pm	PAC 2740	

THET471 **Design Studio in Scenery**

(Perm req)

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Prerequisite: THET371; and permission of ARHU-School of Theatre, Dance & Performance Studies department. Jointly offered with THET639. Credit only granted for: THET471 or THET639.

Advanced study of scenic design for the theatre. Particular design projects will vary.

Students must pay a 25 lab fee.

5501	Daniel Conway	Seats (Total: 4)	
	TuTh 10:00am - 11:50am	PAC 2755	Lab

THET474 **Advanced Stage Management**

(Perm req)

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Prerequisite: THET114 or TDPS201; and (THET116, THET222, THET223, and THET274); and permission of ARHU-School of Theatre, Dance & Performance Studies department. Restriction: Permission of ARHU-School of Theatre, Dance & Performance Studies department; and sophomore standing or higher.

Intensive practical study of the techniques and procedures for stage management.

Students must pay a $25 lab fee.

5501	Jennifer Schwartz	Seats (Total: 12)
	TuTh 11:00am - 12:15pm	PAC 1924

THET477 **Design Studio in Lighting**

(Perm req)

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Prerequisite: THET377; and permission of ARHU-School of Theatre, Dance & Performance Studies department. Jointly offered with THET659. Credit only granted for: THET477 or THET659.

Designed for students who have successfully completed THET377 and wish to further develop their lighting design skills. Emphasis is on theoretical design of productions and realized light lab projects. Particular design projects will vary.

Students must pay a $25 lab fee.

5501	Andrew Cissna	Seats (Total: 6)	
	M 1:00pm - 4:00pm	PAC 2727	Lab

THET488A **Special Topics in Theatre History Before 1800; Theatre Architecture from Minoans to the Baroque**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Topics in the history of world theatre and performance from the Greeks through 1800.

0101	Franklin Hildy	Seats (Total: 15)
	TuTh 11:00am - 12:15pm	PAC 1815

THET497 **Non-Traditional Theatre**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit , D

Seminar exploring American and European experimental performance since 1960. Topics include experimental theatre, performance art, pornography and performance, gender and performance, and popular culture and performance. Topics are treated historically and theoretically. Student-produced performance projects are an important component of the seminar.

Contact department for information to register for this course.

THET499 **Independent Study**

(Perm req)

Credits: 1-3 Grading Method: Regular, Pass-Fail, Audit

An independent study course in which each student completes an assigned major theatre project under close faculty supervision. Projects may culminate with term papers, scenic or costume designs, or a stage production.

Contact department for information to register for this course.

THET499G **Independent Study; Realism and Theater Naturalism**

Credits: 1-3 Grading Method: Regular, Pass-Fail, Audit

An independent study course in which each student completes an assigned major theatre project under close faculty supervision. Projects may culminate with term papers, scenic or costume designs, or a stage production.

Contact department for information to register for this course.

THET499Q **Independent Study; Theatrical Forms and Genres**

Credits: 1-3 Grading Method: Regular, Pass-Fail, Audit

An independent study course in which each student completes an assigned major theatre project under close faculty supervision. Projects may culminate with term papers, scenic or costume designs, or a stage production.

Contact department for information to register for this course.

THET499R **Independent Study; Issues of Realism**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

An independent study course in which each student completes an assigned major theatre project under close faculty supervision. Projects may culminate with term papers, scenic or costume designs, or a stage production.

Contact department for information to register for this course.

THET499Y **Independent Study; The London Stage**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

An independent study course in which each student completes an assigned major theatre project under close faculty supervision. Projects may culminate with term papers, scenic or costume designs, or a stage production.

Contact department for information to register for this course.

THET499Z **Independent Study; The London Stage**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

An independent study course in which each student completes an assigned major theatre project under close faculty supervision. Projects may culminate with term papers, scenic or costume designs, or a stage production.

Contact department for information to register for this course.

THET608D **Seminar: Theory and Performance Studies; Dramaturgy**

Credits: 3

Grading Method: Regular, Audit, Sat-Fail

A repeatable seminar on special topics in theory of the Theatre and Performance Studies.

0101	Faedra Carpenter	Seats (Total: 10)	
	W 12:00pm - 2:30pm	PAC 1815	

THET639 **Advanced Design Studio in Scenery**

Credits: 3

Grading Method: Regular, Audit, Sat-Fail

A repeatable course that allows students to progress in their design training through a series of carefully and individually structured assignments and projects.

Students must pay a $25.00 lab fee.

5501	Mikhail Kachman	Seats (Total: 8)	
	Tu 9:30am - 12:20pm	PAC 2733	Lab

THET649 **Advanced Design Studio in Costume**

Credits: 3

Grading Method: Regular, Audit, Sat-Fail

A series of carefully and individually structured assignments and projects that allows students to progress in their design training.

5501	Helen Huang	Seats (Total: 10)	
	M 1:00pm - 3:50pm	PAC 2755	Lab

THET659 **Advanced Design Studio in Lighting**

(Perm req)

Credits: 3

Grading Method: Regular, Audit, Sat-Fail

A repeatable course that allows students to progress in their design training through a series of carefully and individually structured assignments and projects.

Students must pay $25 lab fee.

5501	Andrew Cissna	Seats (Total: 15)	
	M 1:00pm - 4:00pm	PAC 2727	Lab

THET669 **Independent Study**

(Perm req)

Credits: 1-3

Grading Method: Regular, Audit, Sat-Fail

Contact department for information to register for this course.

THET669C **Independent Study; Designer Collaboration Strategies**

Credits: 3

Grading Method: Regular, Audit, Sat-Fail

0101	Jared Mezzocchi	Seats (Total: 15)
	Th 3:00pm - 5:50pm	PAC 2733

THET669K **Independent Study; Professional Development in Dance and Theatre**

Credits: 1

Grading Method: Regular, Audit, Sat-Fail

Cross-listed with DANC689F. Credit only granted for THET669K or DANC689F.

0101	Caitlin Marshall	Seats (Total: 15)
	F 2:00pm - 4:00pm	PAC 1815

THET669M **Independent Study; Advanced Media II: Public Projections**

(Perm req)

Credits: 3

Grading Method: Regular, Audit, Sat-Fail

Students must pay a $25 lab fee.

5501	Jared Mezzocchi	Seats (Total: 8)
	F 9:00am - 12:00pm	PAC 2727

THET672 **Theory of Visual Design in Scenery**

Credits: 3

Grading Method: Regular, Audit, Sat-Fail

A historical and theoretical study of design practices in performing arts with an emphasis in scene design and interpretation.

Students must pay a $25.00 lab fee.

5501	Daniel Conway	Seats (Total: 4)	
	TuTh 10:00am - 11:50am	PAC 2755	Lab

THET678 **Theory of Visual Design For the Performing Arts**

(Perm req)

Credits: 3

Grading Method: Regular, Audit, Sat-Fail

A historical and theoretical study of design practices in the performing arts.

Students must pay a $25.00 lab fee.

5501	Daniel Conway M 9:00am - 11:50am	Seats (Total: 6) PAC 2755	Lab
5516	Daniel Conway M 9:00am - 11:50am	Seats (Total: 6) PAC 2755	Lab

THET679 **Advanced Design Studio in Multimedia and Projection Design**

Credits: 3

Grading Method: Regular, Audit, Sat-Fail

A repeatable course that allows students to progress in their design training through a series of carefully and individually structured assignments and projects.

Students must pay a $25.00 lab fee.

5501	Jared Mezzocchi W 9:00am - 12:00pm	Seats (Total: 5) PAC 2827	Lab

THET688A **Special Problems in Drama; Theatre Architecture from the Minoans to the Baroque**

Credits: 3

Grading Method: Regular, Audit, Sat-Fail

The preparation of adaptations and other projects in dramaturgy.

0101	Franklin Hildy TuTh 11:00am - 12:15pm	Seats (Total: 5) PAC 1815

THET698G **Seminar: Theatre History; History of Theatre to 1700**

Credits: 3

Grading Method: Regular, Audit, Sat-Fail

Studies in theatre history from classical antiquity to the present.

0101	Franklin Hildy W 3:00pm - 5:30pm	Seats (Total: 10) PAC 1815

THET712 **Historical Research Methods and Historiography in Theatre**

Credits: 3 Grading Method: Regular, Audit, Sat-Fail

Prerequisite: THET700. Formerly: PCOM712.

A survey of methods commonly used in writing theatre history and their application to a suitable problem. Formulation of significant research questions, systematic collection of bibliographic and phenomenal information, formulating substantial claims, organizing and writing research for disciplinary outlets.

0101	Melissa Blanco Borelli Tu 2:00pm - 4:30pm	Seats (Total: 10) PAC 1815

THET788 **Master's Tutorial**

(Perm req)

Credits: 1-6 Grading Method: Regular, Audit, Sat-Fail

Collaboration with a faculty member on joint creative and artistic projects.

0201	Franklin Hildy Contact instructor or department for details.	Seats (Total: 5)
0601	James Harding Contact instructor or department for details.	Seats (Total: 5)
1101	Mikhail Kachman Contact instructor or department for details.	Seats (Total: 5)
1301	Brian MacDevitt Contact instructor or department for details.	Seats (Total: 5)
1601	Daniel Conway Contact instructor or department for details.	Seats (Total: 5)
1701	Helen Huang Contact instructor or department for details.	Seats (Total: 5)
2001	Faedra Carpenter Contact instructor or department for details.	Seats (Total: 5)
2005	Laurie Frederik Contact instructor or department for details.	Seats (Total: 5)

2007	Jared Mezzocchi Contact instructor or department for details.	Seats (Total: 5)

THET789 **Master's Practicum**

Credits: 1-6 Grading Method: Regular, Audit, Sat-Fail

Participation in creative and artistic activities with professional level theatrical organizations.

0201	Franklin Hildy Contact instructor or department for details.	Seats (Total: 5)
0601	James Harding Contact instructor or department for details.	Seats (Total: 6)
1101	Mikhail Kachman Contact instructor or department for details.	Seats (Total: 5)
1301	Brian MacDevitt Contact instructor or department for details.	Seats (Total: 5)
1601	Daniel Conway Contact instructor or department for details.	Seats (Total: 5)
1701	Helen Huang Contact instructor or department for details.	Seats (Total: 5)
2001	Faedra Carpenter Contact instructor or department for details.	Seats (Total: 5)
2005	Laurie Frederik Contact instructor or department for details.	Seats (Total: 5)
2007	Jared Mezzocchi Contact instructor or department for details.	Seats (Total: 5)

THET799 **Master's Thesis Research**

(Perm req)

Credits: 1-6 Grading Method: Sat-Fail

Contact department for information to register for this course.

THET888 **Doctoral Practicum in Theatre**

(Perm req) Credits: 1-6 Grading Method: Regular, Sat-Fail

Critical analysis of a phase of a professional field of theatre. Analysis of professional activity through personal observation. Evaluation of the purpose, process, effectiveness, and efficiency of professional activity. Recommendations for training and further research.

0201	Franklin Hildy Contact instructor or department for details.	Seats (Total: 10)
0501	Instructor: TBA Contact instructor or department for details.	Seats (Total: 10)
0601	James Harding Contact instructor or department for details.	Seats (Total: 10)
2001	Faedra Carpenter Contact instructor or department for details.	Seats (Total: 10)
2005	Laurie Frederik Contact instructor or department for details.	Seats (Total: 10)

THET889 Doctoral Tutorial in Theatre

(Perm req) Credits: 1-6 Grading Method: Regular, Sat-Fail

Individual research in theatre.

0201	Franklin Hildy Contact instructor or department for details.	Seats (Total: 10)
0501	Instructor: TBA Contact instructor or department for details.	Seats (Total: 10)
0601	James Harding Contact instructor or department for details.	Seats (Total: 10)
2001	Faedra Carpenter Contact instructor or department for details.	Seats (Total: 10)
2005	Laurie Frederik Contact instructor or department for details.	Seats (Total: 10)

THET898 Pre-Candidacy Research

(Perm req) Credits: 1-6 Grading Method: Regular, Sat-Fail

Contact department for information to register for this course.

THET899 **Doctoral Dissertation Research**

(Perm req) Credits: 6 Grading Method: Sat-Fail

Contact department for information to register for this course.

TLPL Teaching and Learning, Policy and Leadership Spring 2020

TLPL101 **Inquiry Approach to Teaching STEM (Step 1)**

Credits: 1 Grading Method: Regular, Pass-Fail

Additional information: Students must allow for a three-hour window between 7:45 AM and 3:15 PM in their schedule for field experiences in a local school 3-4 times during the semester. A background check is required and will be facilitated by the Terrapin Teacher program coordinator.

Explore STEM teaching and learning and classroom complexity, and develop teaching skills through discussion-based, collaborative class sessions, and experiences in local schools. To explore/understand the fundamentals of inquiry teaching, students will observe, plan and teach student-centered lessons.

0101	Margaret Walton M 3:00pm - 4:20pm	Seats (Total: 24) PHY 1120
0301	Steven Karig, Aretha Williams Th 2:00pm - 3:20pm	Seats (Total: 24) PHY 1120
0401	Sarah Henson-Darko Th 2:00pm - 3:20pm	Seats (Total: 24) PHY 1120
0501	Anitra Butler-Ngugi, Kayla White Th 4:00pm - 5:20pm	Seats (Total: 24) PHY 1108

TLPL102 **Inquiry Teaching of STEM in Middle School**

Credits: 2 Grading Method: Regular, Pass-Fail General Education: DSSP

Prerequisite: Must have completed TLPL101. Additional information: Attendance at each class session will be vital to student success in the course. To complete the observations and lessons, students must allow a three hour block of time during the local middle school operational hours from 7:45 am to 3:15 pm. A background check is required.

Second course in the Terrapin Teachers teacher preparation sequence. Students gain field experience and continue exploring teaching as a career by conducting teacher observations, and planning and implementing lessons in local, high-need middle school classrooms. Students work closely with UM master teachers to build upon the inquiry-based teaching practices developed in TLPL 101. Students work with mathematics and science curricula while attending to state and district standards, in order to develop and enact lessons that are responsive to students' reasoning in math and science.

0101	Sarah Henson-Darko W 4:00pm - 5:50pm	Seats (Total: 24) PHY 1108	
0201	Anita Sanyal Th 4:00pm - 5:50pm	Seats (Total: 24) PHY 1120	

TLPL202 **Good Stories: Teaching Narratives for Peace and Justice**

Credits: 3 | Grading Method: Regular, Pass-Fail | General Education: DSHU, SCIS

Credit only granted for: EDCI246 or TLPL202. Formerly: EDCI246.

Through the study and use of oral storytelling and digital technologies explore qualities and characteristics of what makes a good story and how stories can be used to advance peace and justice on both individual and social levels.

0101	Margaret Peterson Tu 11:00am - 12:15pm Th 11:00am - 12:15pm	Seats (Total: 30) ESJ 2309 ESJ 2309	 Lab
0102	Margaret Peterson Tu 11:00am - 12:15pm Th 11:00am - 12:15pm	Seats (Total: 30) ESJ 2309 ESJ 2309	 Lab

TLPL250 **Historical and Philosophical Perspectives on Education**

Credits: 3 | Grading Method: Regular, Pass-Fail | General Education: DSHU

Credit only granted for: EDPS210 or TLPL250. Formerly: EDPS210.

An examination of illustrative historical and philosophical examples of the interplay of ideas and events in the shaping of educational aims and practices from ancient cultures to modern technological societies.

0101	Pamela Callahan MW 10:00am - 11:15am	Seats (Total: 30) SQH 1105	
0201	Erin Janulis, Genevieve D'Cruz TuTh 9:30am - 10:45am	Seats (Total: 30) JMZ 0125	
0301	Lisa Eaker TuTh 12:30pm - 1:45pm	Seats (Total: 30) PLS 1113	
0401	Joel Miller MW 11:00am - 12:15pm	Seats (Total: 30) EDU 2121	

TLPL251 **Introduction to Teaching**

Credits: 3 Grading Method: Regular, Pass-Fail

Credit only granted for: EDCI280 or TLPL251. Formerly: EDCI280.

An exploration of teaching in public schools, grades 1-12: student diversity, societal changes, and the expectations of teachers and public schools. Three hour per week field component.

0101	Lisa Bote Th 4:00pm - 5:50pm Tu 8:00am - 12:00pm	Seats (Total: 8) BPS 1238 Location: TBA	Lab
0102	Lisa Bote Th 4:00pm - 5:50pm W 8:00am - 12:00pm	Seats (Total: 5) BPS 1238 Location: TBA	Lab
0103	Lisa Bote Th 4:00pm - 5:50pm Th 8:00am - 12:00pm	Seats (Total: 8) BPS 1238 Location: TBA	Lab
0104	Lisa Bote Th 4:00pm - 5:50pm Th 11:30am - 3:30pm	Seats (Total: 6) BPS 1238 Location: TBA	Lab

TLPL252 **Students, Schooling, and Communities**

(Perm req)

Credits: 3

Grading Method: Regular, Pass-Fail, Audit

General Education: DSSP

Corequisite: TLPL251. Credit only granted for: EDCI297 or TLPL252. Formerly: EDCI297.

Facilitates pre-service teachers' initial look at their personal backgrounds and the ways in which they view the world. Exploration of schools, students and their connections to communities. Draws on preservice teachers' concurrent field experiences.

0101	Madiha Moin	Seats (Total: 25)
	MW 9:30am - 10:45am	EDU 2121

TLPL288E **Special Problems in Education; Developmental Heuristics**

Credits: 3

Grading Method: Regular, Pass-Fail, Audit

Special and intensive treatment of current topics and issues in teaching, learning, policy and leadership. Available only to freshmen and sophomore students who have definite plans for individual study of approved problems relative to their preparation for teaching.

0101	Sharon Vanwright	Seats (Total: 150)
	Contact instructor or department for details.	

TLPL288K **Reinventing Childhood: Unschooling in the Digital Age**

Credits: 3

Grading Method: Regular, Pass-Fail, Audit

General Education: DSHS, SCIS

0101	Kellie Rolstad	Seats (Total: 60)
	TuTh 11:00am - 12:15pm	HJP 2242

TLPL298 **Special Problems in Education**

(Perm req)

Credits: 1-6

Grading Method: Regular, Pass-Fail, Audit

Exploration of current problems in teaching, learning, policy and leadership. Available only to students who have definite plans for study of approved problems.

Contact department for information to register for this course.

TLPL300 **Digital Learning Tools and Communities**

Credits: 1

Grading Method: Regular, Pass-Fail, Audit

Restriction: Minimum cumulative GPA of 2.75; and must be in one of the following programs (Elementary Education; Secondary Educ: Social Studies; Secondary Educ: Art; Secondary Educ: Mathematics; Secondary Educ: Science; Secondary Educ: English Language Arts; Secondary Educ: Foreign Languages). Credit only granted for: EDCI385 or TLPL300. Formerly: EDCI385.

An exploration of the digital tools available for P12 students and their teachers that enhance learning and help build classroom community. This hybrid course will prepare P12 teachers to incorporate instructional technology, digital learning resources, and social media in P12 classrooms.

This course start date is approximately 2 weeks before the official beginning of the Spring semester.

0101	Cachanda Orellana Contact instructor or department for details.	Seats (Total: 0)
0201	Cachanda Orellana Contact instructor or department for details.	Seats (Total: 0)
0301	Cachanda Orellana Contact instructor or department for details.	Seats (Total: 0)
0401	Cachanda Orellana Contact instructor or department for details.	Seats (Total: 30)

TLPL305A **Curriculum and Instruction Cluster**

(Perm req)

Credits: 0 Grading Method:

This is for Seniors only.

0101	Instructor: TBA Contact instructor or department for details.	Seats (Total: 26)
0201	Instructor: TBA Contact instructor or department for details.	Seats (Total: 26)
0301	Instructor: TBA Contact instructor or department for details.	Seats (Total: 26)

TLPL305B **Curriculum and Instruction Cluster**

(Perm req)

Credits: 0 Grading Method:

This is for Juniors only.

0101	Instructor: TBA Contact instructor or department for details.	Seats (Total: 26)
0201	Instructor: TBA Contact instructor or department for details.	Seats (Total: 26)
0301	Instructor: TBA Contact instructor or department for details.	Seats (Total: 26)

TLPL332 **Arts Integration in Elementary Classrooms**

Credits: 3 Grading Method: Regular, Pass-Fail

Corequisite: TLPL362, EDCI362, TLPL361, and EDCI489. Restriction: Must be in Elementary Education program; and minimum cumulative GPA of 2.75. Or permission of EDUC-Teaching and Learning, Policy and Leadership department. Credit only granted for: TLPL306 or TLPL332. Formerly: TLPL306.

An exploration of the theories and core practices associated with integrating the arts in ways that promote student learning in the core subjects.

0101	Leayne Dempsey Th 12:30pm - 3:15pm	Seats (Total: 26) EDU 2212
0201	Katherine Coogan Th 9:00am - 11:45am	Seats (Total: 26) EDU 2121
0301	Linda Krakaur W 12:30pm - 3:15pm	Seats (Total: 26) EDU 1315

TLPL340 **Introduction to Children's Literature and Critical Literacy**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Restriction: Must be in Elementary Education program; or must be a Pre-Education Major. Credit only granted for: EDCI443 or TLPL340. Formerly: EDCI443.

Analysis of literary materials for children and youth. Timeless and ageless books, and outstanding examples of contemporary publishing. Evaluation of the contributions of individual authors, illustrators and children's book awards.

0101	Olivia Saracho TuTh 1:00pm - 2:15pm	Seats (Total: 30) PHY 4222

0201	Montserrat Cubillos Guzman TuTh 2:30pm - 3:45pm	Seats (Total: 30) KEY 0102

TLPL360 **Foundations of Education**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit General Education: DSHS

Credit only granted for: EDPS301 or TLPL360. Formerly: EDPS301.

Social context of education and conflicts over philosophies, values, an goals that are reflected in educational institutions in our pluralistic society. Helps teachers become reflective, critical thinkers about the social and philosophical issues they face and the choices they make.

0101	Doug McNamara MW 1:00pm - 2:15pm	Seats (Total: 30) MTH B0425
0201	Mary Johnson MW 11:00am - 12:15pm	Seats (Total: 30) EDU 3315
0301	Julie Miller TuTh 11:00am - 12:15pm	Seats (Total: 30) EDU 3315
0401	Jason Saltmarsh TuTh 12:30pm - 1:45pm	Seats (Total: 30) LEF 1201
0501	Lisa Eaker W 4:15pm - 7:00pm	Seats (Total: 30) KNI 1103

TLPL361 **Principles and Methods of Teaching in Elementary Schools**

(Perm req)

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Corequisite: EDCI322, EDCI362, TLPL306, and EDCI489. Restriction: Must be in Elementary Education program; and minimum cumulative GPA of 2.75. Or permission of EDUC-Teaching and Learning, Policy and Leadership department. Credit only granted for: EDCI397 or TLPL361. Formerly: EDCI397.

Teaching strategies, classroom interactive techniques, and procedures for planning and evaluating instruction in elementary schools. Emphasis on principles of effective instruction, classroom management, and adaptation of instruction for various student populations.

0101	Whitney Sweet Tu 12:30pm - 3:15pm	Seats (Total: 26) EDU 2212
0201	Whitney Sweet Tu 9:00am - 11:45am	Seats (Total: 26) EDU 2212
0301	Tracy Dunheimer M 9:00am - 11:45am	Seats (Total: 26) EDU 2212

TLPL362 **Curriculum and Instruction in Elementary Education: Social Studies**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Corequisite: EDCI362, TLPL361, EDCI489, and TLPL306. Restriction: Must be in Elementary Education program; and minimum cumulative GPA of 2.75. Or permission of EDUC-Teaching and Learning, Policy and Leadership department. Credit only granted for: EDCI322 or TLPL362. Formerly: EDCI322.

Curriculum, organization and methods of teaching, evaluation of materials, and utilization of environmental resources. Emphasis on multicultural education. Includes laboratory/field experiences.

0101	Deborah Lewin Tu 9:00am - 11:45am Class time/details on ELMs	Seats (Total: 26) EDU 2121 ONLINE
0201	Lisa Eaker Th 12:30pm - 3:15pm Class time/details on ELMs	Seats (Total: 26) TYD 2110 ONLINE
0301	Catherine McCall W 9:00am - 11:45am Class time/details on ELMs	Seats (Total: 26) EDU 2212 ONLINE

TLPL406 **Teaching and Learning Mathematics in the Elementary School, Part 1**

Credits: 3 Grading Method: Regular, Pass-Fail

Jointly offered with: TLPL607. Credit only granted for: TLPL607 or TLPL406.

Focuses on teaching and learning whole numbers. Special emphasis will be placed on developing equitable teaching practices that enable culturally and linguistically diverse students to develop knowledge and skills that promote mathematical proficiency. Mathematical concepts: Content knowledge: some aspects of early numeracy, whole numbers and the four arithmetic operations, some aspects of algebraic thinking.

Contact department for information to register for this course.

TLPL414 **Knowing and Learning in Mathematics and Science**

(Perm req)

Credits: 3 | Grading Method: Regular, Pass-Fail | General Education: DSHS

Prerequisite: Must have completed or be concurrently enrolled in TLPL102. Credit only granted for: TLPL488M or TLPL414. Formerly: TLPL488M.

Special and intensive treatment of current topics and issues in mathematics and science teaching and learning, policy and leadership. The overall goal of the course is to orient future teachers to the discourses and theories that shape what we know about how students learn math and science.

0101	Anita Sanyal W 4:00pm - 6:50pm	Seats (Total: 20) PHY 1120

TLPL415 **Perspectives in Science**

Credits: 3 | Grading Method: Regular, Pass-Fail

Prerequisite: Permission of instructor. Credit only granted for: TLPL488W or TLPL415. Formerly: TLPL488W.

Overview of the history of science and philosophical perspectives on science, particularly as they apply to science teaching.

0101	Daniel Levin TuTh 5:00pm - 6:15pm	Seats (Total: 20) ASY 3215

TLPL421 **Practices in Secondary School Science Teaching**

(Perm req)

Credits: 2 | Grading Method: Regular, Pass-Fail, Audit

Prerequisite: TLPL425. Corequisite: EDCI471 and EDCI474. Restriction: Permission of EDUC-Teaching and Learning, Policy and Leadership department; and must be in Secondary Educ: Science program. Or minimum cumulative GPA of 2.75. Credit only granted for: TLPL421 or EDCI480. Formerly: EDCI480.

Analyses of student thinking, instructional interpretations, strategies, and techniques in the teaching internship.

0101	Tranae Johnson	Seats (Total: 10)
	W 5:15pm - 7:15pm	EDU 2212

TLPL424 **Interdisciplinary Teaching in the Middle Grades II**

Credits: 2 Grading Method: Regular, Pass-Fail, Audit

Prerequisite: EDCI360 and TLPL423. Corequisite: TLPL476 and EDCI460. Restriction: Minimum cumulative GPA of 2.5; and must be in the Middle School Teacher Education Program. Credit only granted for: EDCI414 or TLPL424. Formerly: EDCI414.

For prospective middle school teachers. Planning and implementing interdisciplinary instructional practices in middle school. Draws on the context of and experiences in the student teaching placement. Use of technology and incorporation of technology into instruction.

0101	Janet Walkoe	Seats (Total: 20)
	W 5:00pm - 6:50pm	EDU 2121

TLPL435 **Art Education Methods I**

(Perm req)

Credits: 3 Grading Method: Regular, Pass-Fail, Audit General Education: DSSP

Restriction: Minimum cumulative GPA of 2.75; and permission of EDUC-Teaching and Learning, Policy and Leadership department. And must be in Secondary Educ: Art program; or must be in Secondary Educ: Art pre-major program. Credit only granted for: EDCI405 or TLPL435. Formerly: EDCI405.

Methods I provides future art teachers with a knowledge base of the theories and best practices of effective pedagogy for: teaching methods and strategies, diversity, motivational techniques, classroom management, assessment and evaluation methods, and accommodating all students including those with special needs.

0101	Margaret Walker	Seats (Total: 25)
	Tu 9:00am - 12:00pm	EDU 1315

TLPL437 **Studio Processes and Materials: 3D**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Restriction: Must be in Secondary Educ: Art program; or must be a Pre-Art Education Major. Credit only granted for: EDCI407 or EDCI437. Formerly: EDCI407.

A lecture-studio course to develop skills, material resources, and educational strategies for three-dimensional projects in school settings.

0101	Margaret Walker	Seats (Total: 25)
	MW 9:00am - 11:50am	EDU 1315

TLPL441 **Pedagogy of Teaching English Language Learners**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Credit only granted for: EDCI434 or TLPL441. Formerly: EDCI434.

A survey of the historical and current approaches, methods, and techniques of teaching English to speakers of other languages, from grammar translation and audiolingual to communicative and task-based approaches will be presented. Additionally, successful classroom practices that address the needs of culturally diverse and language minority students will be analyzed. Students will have the opportunity to discuss, probe and apply theories and principles to hands-on teaching practices in real-life settings. Digital technologies that assist teaching English language learners (ELLs) will be emphasized as well.

0101	Wyatt Hall	Seats (Total: 24)
	TuTh 12:30pm - 1:45pm	EDU 1315

TLPL443 **Understanding Cross-Cultural Communication for Teaching English Language Learners**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit General Education: DVCC

Credit only granted for: EDCI436 or TLPL443. Formerly: EDCI436.

Theories of intercultural communication and techniques for applying them in the teaching of English as a second language (ESL) and content classes. Research and evaluation of selected aspects of a culture as basis for creating, selecting and using culturally-responsive teaching materials and methods.

0101	Melinda Martin-Beltran	Seats (Total: 25)
	W 5:00pm - 7:45pm	EDU 3315

TLPL444 **English Grammar Pedagogy for Teachers of English Language Learners**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Credit only granted for: EDCI437 or TLPL444. Formerly: EDCI437.

Methods of teaching English grammar to English language learners. The role of teaching grammar. Effective methods and techniques for incorporating grammar in other communication activities.

0101	Jeff MacSwan	Seats (Total: 25)
	Class time/details on ELMs	ONLINE

TLPL452 **Bases for English Language Instruction**

(Perm req)

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Restriction: Must be in Secondary Educ: English Language Arts program; and minimum cumulative GPA of 2.75; and permission of EDUC-Teaching and Learning, Policy and Leadership department. Credit only granted for: EDCI417 or TLPL452. Formerly: EDCI417.

Examines current theory, research, best practice, curricula and materials focused on the teaching of English language to native and non-native English learners. Topics include morphology, syntax, semantics, vocabulary, pragmatics, argument, discourse structure, dialects, edited academic English, English language proficiency (listening, speaking, reading, writing) assessment, and instructional planning. English Language Learner (TESOL and SIOP) and special needs (inclusion) pupil issues considered.

0101	Wayne Slater	Seats (Total: 30)
	W 5:00pm - 7:45pm	JMZ 0103

TLPL460 **Materials and Instruction for Creating Skilled and Motivated Readers, Part I**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Restriction: Must be in Elementary Education program; and junior standing or higher. Or permission of EDUC-Teaching and Learning, Policy and Leadership department. Credit only granted for: EDCI461 or TLPL460. Formerly: EDCI461.

Selecting, evaluating, and using a variety of materials and instructional strategies to create skilled and motivated readers in the elementary grades; Topics include emergent literacy, vocabulary development, reading comprehension and oral reading fluency in diverse classroom settings.

Contact department for information to register for this course.

TLPL461 **Materials and Instruction for Creating Skilled and Motivated Readers, Part II**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Prerequisite: TLPL361 and TLPL460. Corequisite: TLPL312, EDCI342, TLPL321, and TLPL362. Restriction: Minimum cumulative GPA of 2.75; and permission of EDUC-Teaching and Learning, Policy and Leadership department; and must be in Elementary Education program. Credit only granted for: EDCI462 or TLPL461. Formerly: EDCI462.

Selecting, evaluating, and using a variety of materials to create skilled and motivated readers in the elementary grades, particularly in diverse classroom settings; Topics include word analysis, spelling, writing, reading comprehension strategies, directed reading lessons, and explicit instruction.

Contact department for information to register for this course.

TLPL462 **Reading in the Secondary School**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Restriction: Minimum cumulative GPA of 2.75; and must be in one of the following programs (Middle School Education; Secondary Educ: Science; Secondary Educ: English Language Arts; Secondary Educ: Mathematics; Secondary Educ: Foreign Languages; Secondary Educ: Social Studies; Secondary Educ: Art) ; and permission of department required for post-baccalaureate students. Credit only granted for: EDCI463 or TLPL462. Formerly: EDCI463.

Provides secondary school teachers with understanding the need for and approaches to teaching students to read and learn from content area texts.

0201	Olivia Saracho W 2:00pm - 4:30pm	Seats (Total: 30) EDU 3315

TLPL476 **Equity and Pedagogy**

Credits: 2 Grading Method: Regular, Pass-Fail, Audit

Prerequisite: TLPL475. Corequisite: TLPL424 and EDCI460. Restriction: Minimum cumulative GPA of 2.75; and must be in one of the following programs (Middle School Education; Early Childhood Education; Elementary Education; Secondary Educ: Science; Secondary Educ: English Language Arts; Secondary Educ: Mathematics; Secondary Educ: Foreign Languages; Secondary Educ: Social Studies; Physical Education; Music Education; Secondary Educ: Art; Special Education). Credit only granted for: EDCI425 or TLPL476. Formerly: EDCI425.

An exploration and application of major theoretical frameworks surrounding equity and critical pedagogy. Pedagogical decision making that leads to greater equity and improved student learning for all students. Draws on the concurrent student teaching experience.

0101	Nardos Ghebreab Tu 5:00pm - 7:00pm	Seats (Total: 20) EDU 3236

TLPL478A **Professional Seminar in Education; Professional Seminar in Education: Art Education**

(Perm req)

Credits: 3 Grading Method: Regular, Pass-Fail

Seminar on the issues and problems teacher candidates encounter in classrooms. Exploration of the skills and strategies that best address these challenges.

0101	Margaret Walker Tu 4:30pm - 7:15pm	Seats (Total: 8) JMZ 1123

TLPL478B **Professional Seminar in Education; Professional Seminar in Education: Social Studies**

(Perm req)

Credits: 2 Grading Method: Regular, Pass-Fail

Seminar on the issues and problems teacher candidates encounter in classrooms. Exploration of the skills and strategies that best address these challenges.

0101	Alison Jovanovic M 5:00pm - 7:00pm	Seats (Total: 30) ASY 3207

TLPL478C **Professional Seminar in Education; Professional Seminar in Education: English**

(Perm req)

Credits: 2 Grading Method: Regular, Pass-Fail

Seminar on the issues and problems teacher candidates encounter in classrooms. Exploration of the skills and strategies that best address these challenges.

0101	Peggy Wilson M 4:15pm - 6:15pm Class time/details on ELMs	Seats (Total: 35) Location: TBA ONLINE

TLPL478D **Professional Seminar in Education; Professional Seminar in Education: Mathematics**

(Perm req)

Credits: 1 Grading Method: Regular, Pass-Fail

Seminar on the issues and problems teacher candidates encounter in classrooms. Exploration of the skills and strategies that best address these challenges.

0101	Dana Grosser-Clarkson M 4:00pm - 5:30pm	Seats (Total: 10) PHY 1120

TLPL478G **Professional Seminar in Education; Elementary Education**

Credits: 2 Grading Method: Regular, Pass-Fail

Seminar on the issues and problems teacher candidates encounter in classrooms. Exploration of the skills and strategies that best address these challenges.

0101	Deborah Lewin Contact instructor or department for details.	Seats (Total: 0)
0201	Brooke Dalesio Contact instructor or department for details.	Seats (Total: 0)
0301	Tracy Dunheimer Contact instructor or department for details.	Seats (Total: 0)

TLPL479G **Field Experiences in Education; Internship**

(Perm req)

Credits: 1 Grading Method: Sat-Fail

Field experiences in approved eduation setting with appropriate supervision. Credit not to be granted for experience accrued prior to registration. Open only to students admitted to approved teacher education programs.

Students must pay $135 lab fee.

0101	Lisa Bote F 12:00pm - 2:45pm	Seats (Total: 0) TWS 0310
0201	Lisa Bote F 12:00pm - 2:45pm	Seats (Total: 0) TWS 0310
0301	Lisa Bote F 12:00pm - 2:45pm	Seats (Total: 0) TWS 0310

TLPL481 **Embracing Diversity in the Classroom Community**

(Perm req)

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Restriction: Admission to teacher education program; or permission of EDUC-Teaching and Learning, Policy and Leadership department. Credit only granted for: TLPL481 or EDCI475. Formerly: EDCI475.

An exploration of the richness and complexity of student diversity that teacher candidates will encounter in K-12 classrooms. Students will engage in critical reflection around diversity and equity issues.

0101	Rossina Liu M 4:15pm - 7:00pm	Seats (Total: 25) EDU 2121

TLPL488B **Special Topics in Education; Teaching Academically, Culturally and Linguistically DiverseStudents in Secondary Education**

(Perm req)

Credits: 2

Grading Method: Regular, Pass-Fail, Audit

Special and intensive treatment of current topics and issues in teaching, learning, policy and leadership.

0101	Megan Stump, Carolyn Fink Tu 5:00pm - 6:50pm	Seats (Total: 30) EDU 2121

TLPL488I **Special Topics in Education; Culturally Responsive Language and Literacy Instruction in Elementary Classrooms**

(Perm req)

Credits: 3

Grading Method: Regular, Pass-Fail, Audit

Special and intensive treatment of current topics and issues in teaching, learning, policy and leadership.

This course start date is approximately 2 weeks before the official beginning of the Spring semester.

0101	Margaret Peterson Contact instructor or department for details.	Seats (Total: 0)
0201	John O'Flahavan Contact instructor or department for details.	Seats (Total: 0)
0301	John O'Flahavan Contact instructor or department for details.	Seats (Total: 0)

TLPL488L **Special Topics in Education; Promoting Skilled and Motivated Readers in Elementary Classrooms (Part 1)**

(Perm req)

Credits: 3

Grading Method: Regular, Pass-Fail, Audit

Special and intensive treatment of current topics and issues in teaching, learning, policy and leadership.

0101	Tara Johnston Th 9:00am - 11:45am	Seats (Total: 26) EDU 1315
0201	Brooke Dalesio Tu 12:30pm - 3:15pm	Seats (Total: 26) EDU 2121

0301	Ayanna Baccus	Seats (Total: 26)
	M 12:30pm - 3:15pm	EDU 1121

TLPL489 **Internship in Education**

(Perm req)

Credits: 1-12 Grading Method: Regular, Pass-Fail

Internship or residency experiences in school settings with appropriate supervision. Credit not to be granted for experience accrued prior to registration. Open only to students admitted to approved teacher education programs.

Contact department for information to register for this course.

TLPL489A **Internship in Education; Internship in Education: Art**

(Perm req)

Credits: 12 Grading Method: Regular, Pass-Fail

Internship or residency experiences in school settings with appropriate supervision. Credit not to be granted for experience accrued prior to registration. Open only to students admitted to approved teacher education programs.

Students must pay a $750.00 lab fee.

0101	Katherine Coogan	Seats (Total: 18)
	Contact instructor or department for details.	

TLPL489B **Internship in Education; Internship in Education: Social Studies/History**

(Perm req)

Credits: 12 Grading Method: Regular, Pass-Fail

Internship or residency experiences in school settings with appropriate supervision. Credit not to be granted for experience accrued prior to registration. Open only to students admitted to approved teacher education programs.

Students must pay a $750.00 lab fee.

0101	Alison Jovanovic	Seats (Total: 30)
	Contact instructor or department for details.	

TLPL489C **Internship in Education; Internship in Education: English**

(Perm req)

Credits: 12 Grading Method: Regular, Pass-Fail

Internship or residency experiences in school settings with appropriate supervision. Credit not to be granted for experience accrued prior to registration. Open only to students admitted to approved teacher education programs.

Students must pay a $750.00 lab fee.

0101	Peggy Wilson	Seats (Total: 25)
	Contact instructor or department for details.	

TLPL489D **Internship in Education; Internship in Education: Mathematics**

(Perm req)

Credits: 12 Grading Method: Regular, Pass-Fail

Internship or residency experiences in school settings with appropriate supervision. Credit not to be granted for experience accrued prior to registration. Open only to students admitted to approved teacher education programs.

Students must pay a $750.00 lab fee.

0101	Dana Grosser-Clarkson	Seats (Total: 15)
	Contact instructor or department for details.	

TLPL489E **Internship in Education; Internship in Education: Middle School**

(Perm req)

Credits: 12 Grading Method: Regular, Pass-Fail

Internship or residency experiences in school settings with appropriate supervision. Credit not to be granted for experience accrued prior to registration. Open only to students admitted to approved teacher education programs.

Students must pay a $750.00 lab fee.

0101	Angela Stoltz	Seats (Total: 20)
	Contact instructor or department for details.	

TLPL489F **Internship in Education; Internship in Education: Science**

(Perm req)

Credits: 12 Grading Method: Regular, Pass-Fail

Internship or residency experiences in school settings with appropriate supervision. Credit not to be granted for experience accrued prior to registration. Open only to students admitted to approved teacher education programs.

Students must pay a $750.00 lab fee.

0101	Tranae Johnson	Seats (Total: 20)
	Contact instructor or department for details.	

TLPL489G **Internship in Education; Internship in Education: Elementary Education Residency**

(Perm req)

Credits: 9 Grading Method: Regular, Pass-Fail

Internship or residency experiences in school settings with appropriate supervision. Credit not to be granted for experience accrued prior to registration. Open only to students admitted to approved teacher education programs.

Students must pay a $375.00 lab fee.

0101	Deborah Lewin	Seats (Total: 0)
	Contact instructor or department for details.	
0201	Brooke Dalesio	Seats (Total: 0)
	Contact instructor or department for details.	
0301	Tracy Dunheimer	Seats (Total: 0)
	Contact instructor or department for details.	

TLPL489J **Internship in Education; Internship in Education: Foreign Language**

(Perm req)

Credits: 12 Grading Method: Regular, Pass-Fail

Internship or residency experiences in school settings with appropriate supervision. Credit not to be granted for experience accrued prior to registration. Open only to students admitted to approved teacher education programs.

Students must pay a $750.00 lab fee.

0101	Perla Blejer	Seats (Total: 12)
	Contact instructor or department for details.	

TLPL498 **Special Problems in Education**

(Perm req)

Credits: 1-3 Grading Method: Regular, Pass-Fail, Audit

Exploration of current problems in teaching, learning, policy and leadership. Available only to students who have definite plans for study of approved problems.

Contact department for information to register for this course.

TLPL623 **Learning and Teaching Biological Sciences**

Credits: 3 Grading Method: Regular, Audit, Sat-Fail

Restriction: Enrollment in an EDCI Outreach Program in science education; or must be in Curriculum and Instruction (Master's) program; or permission of instructor. Credit only granted for: EDCI606 or TLPL623. Formerly: EDCI606.

Engagement in laboratory and inquiry-based methods to develop coherent understandings about the natural world and explore issues learning in biology. Personal engagement with phenomena and reflection on the learning and instructional experiences.

Contact department for information to register for this course.

TLPL641 **Reading, Cognition, and Instruction: Reading in the Content Areas I**

Credits: 3 Grading Method: Regular, Sat-Fail

Credit only granted for: EDCI625 or TLPL641. Formerly: EDCI625.

Provides middle and secondary education students with an understanding of the interactive nature of the reading process, the use of research-based instructional strategies, the relationship between vocabulary development and student concept development, the design of strategic reading instruction, the methods for assessing content area literacy, and the ability to plan instruction and communicate with students, parents, and allied professionals.

0101	Ying Alice Zhang	Seats (Total: 15)
	Tu 5:30pm - 8:00pm	TWS 1321

TLPL643 **Assessing Student Learning and Development**

Credits: 3 Grading Method: Regular, Audit, Sat-Fail

Credit only granted for: EDCI612 or TLPL643. Formerly: EDCI612.

Prepares experienced teachers to assess student knowledge, strategies and skills over time so that they can design instruction that builds on student strengths and addresses student needs. Teachers will study the purposes of assessment including school and student needs. Teachers will study the purposes of assessment including school and teacher accountability, student placement, course grade assignment and instructional design. They also will explore types of formal and informal assessment, curriculum-based and curriculum-free assessment, external and teacher made assessment.

0101	Peter Afflerbach	Seats (Total: 15)
	Tu 4:15pm - 7:00pm	JMZ 0118

TLPL646 **Linguistics in Education**

Credits: 3 Grading Method: Regular, Sat-Fail

Provides teachers and educational researchers with the theoretical and technical knowledge of linguistics necessary to engage effectively in their fields.

0101	Jeff MacSwan	Seats (Total: 25)
	W 5:00pm - 7:45pm	EDU 1121
	Class time/details on ELMs	ONLINE

TLPL647 **Diagnostic Reading Assessment and Instruction**

Credits: 3 Grading Method: Regular, Audit, Sat-Fail

Restriction: Permission of EDUC-Teaching and Learning, Policy and Leadership department. Credit only granted for: EDCI662 or TLPL647. Formerly: EDCI662.

Survey course in diagnostic reading assessment and instruction for graduate students not majoring in reading.

Contact department for information to register for this course.

TLPL651 **Leadership in Schoolwide Reading Program**

Credits: 3 Grading Method: Regular, Audit, Sat-Fail

Restriction: Permission of EDUC-Teaching and Learning, Policy and Leadership department. Credit only granted for: EDCI666 or TLPL651. Formerly: EDCI666.

Preparation of reading personnel to function as resource persons to classroom teachers, administrators and the school community.

0101	Jennifer Turner	Seats (Total: 20)
	W 5:00pm - 7:45pm	JMZ 0205

TLPL654 **Clinical Instruction in Reading**

Credits: 3 Grading Method: Regular, Audit, Sat-Fail

Prerequisite: TLPL653; or permission of EDUC-Teaching and Learning, Policy and Leadership department. Credit only granted for: EDCI665 or TLPL654. Formerly: EDCI665.

Clinical procedures and materials for reading instruction.

0101	Ayanna Baccus	Seats (Total: 30)
	M 5:00pm - 7:45pm	EDU 2119

TLPL655 **Student Assessment in the Second Language Classroom**

Credits: 3 Grading Method: Regular, Audit, Sat-Fail

Credit only granted for: EDCI631 or TLPL655. Formerly: EDCI631.

Analysis of standardized and teacher-made FL/ESL tests; emphasis on principles of FL/ESL test construction. Field testing of commercial and teacher-made materials.

0101	Natalia Guzman	Seats (Total: 25)
	Class time/details on ELMs	ONLINE

TLPL657 **Teaching for Cross Cultural Communication**

Credits: 3 Grading Method: Regular, Audit, Sat-Fail

Credit only granted for: EDCI633 or TLPL657. Formerly: EDCI633.

Theories of intercultural communication and techniques for applying them in the teaching of English as a second language (ESL) and content classes. Research and evaluation of selected aspects of a culture as basis for creating, selecting and using culturally-responsive teaching materials and methods.

0101	Melinda Martin-Beltran	Seats (Total: 25)
	W 5:00pm - 7:45pm	EDU 3315

TLPL660 **Foundations of Literacy and Biliteracy Development**

Credits: 3 Grading Method: Regular, Audit, Sat-Fail

Prerequisite: TLPL665. Credit only granted for: EDCI636 or TLPL660. Formerly: EDCI636.

An overview of the research on literacy and biliteracy development for English learners. Specifically, the course explores the theoretical models and processes of teaching reading and writing, current literacy/biliteracy issues, assessment, and strategies for developing literacy and biliteracy skills for English learners.

0101	Shenika Hankerson	Seats (Total: 15)
	M 5:00pm - 7:45pm	EDU 3236

TLPL662 **Second Language Acquisition**

(Perm req)

Credits: 3

Grading Method: Regular, Audit, Sat-Fail

Restriction: Permission of EDUC-Teaching and Learning, Policy and Leadership department. Credit only granted for: EDCI732 or TLPL662. Formerly: EDCI732.

Major theoretical approaches to second language acquisition. For teaching English to speakers of other languages (TESOL).

0101	Andres Garcia	Seats (Total: 15)
	Th 5:00pm - 7:45pm	EDU 2212

TLPL663 **Practice and Theory in Teaching Second Language Learners**

Credits: 3

Grading Method: Regular, Audit, Sat-Fail

Corequisite: EDCI637 or EDCI689; or permission of EDUC-Teaching and Learning, Policy and Leadership department. Credit only granted for: EDCI613 or TLPL663. Formerly: EDCI613.

Focuses on issues that arise while teaching second language (ESOL or foreign language) learners. Supports implementation of theory into practice and research-based best practices during teaching internship, and completion of teaching portfolio during a second field experience.

0101	Tabitha Kidwell	Seats (Total: 10)
	M 5:00pm - 7:45pm	ASY 3217

TLPL664 **Foundations of Second Language Education: Legal, Social and Historical Trends and Issues**

Credits: 3

Grading Method: Regular, Audit, Sat-Fail

Credit only granted for: EDCI630 or TLPL664. Formerly: EDCI630.

Knowledge of history, research, current practice and public policy issues in the field of second languague education from kindergarten to post-secondary settings. Required for TESOL certification program.

Contact department for information to register for this course.

TLPL665 **Methods of Teaching ESOL**

Credits: 3

Grading Method: Regular, Audit, Sat-Fail

Credit only granted for: EDCI634 or TLPL665. Formerly: EDCI634.

This course presents a survey of the historical and current approaches, methods, and techniques of teaching English to speakers of other languages, from grammar to translation to audiolingual and communicative approaches. Additionally, successful classroom practices that address the needs of culturally diverse and language minority students will be analyzed.

Contact department for information to register for this course.

TLPL668 **Developing a Professional Portfolio**

Credits: 1 Grading Method: Regular, Audit, Sat-Fail

Students will examine issues of performance assessment and develop professional portfolios following the guidelines established by the National Board of Professional Teaching Standards. Drawing on the research data collected throughout their program and relying on inquiry, reflections, and analysis, they will synthesize and present the body of their teaching experience.

Contact department for information to register for this course.

TLPL671 **Education Policy Analysis**

Credits: 3 Grading Method: Regular, Audit, Sat-Fail

Credit only granted for: EDPS620 or TLPL671. Formerly: EDPS620.

Policy making in education from planning to evaluation with emphasis on the identification of policy problems and the resources available to analysts through multi-disciplinary approaches. An introductory experience with education policy analysis.

0101	Betty Malen	Seats (Total: 20)
	Tu 4:15pm - 7:00pm	EDU 1107

TLPL672 **Impact Evaluation for Education and Public Policy**

Credits: 3 Grading Method: Regular, Audit, Sat-Fail

Prerequisite: Knowledge of multivariate regression and prior experience with statistical programming software (e.g., Stata). Credit only granted for: TLPL672 or EDPS621. Formerly: EDPS621.

Students will learn about and practice using a variety of quantitative research methods that allow for causal inferences and can be applied to estimate the impact of policies or programs in education and other policy sectors.

0101	David Blazar	Seats (Total: 20)
	W 4:15pm - 7:00pm	JMZ 3205

TLPL677 **Reframing Teacher Professionalism: Achieving Teacher Leadership**

Credits: 3 Grading Method: Regular, Audit, Sat-Fail

Credit only granted for: EDCI682 or TLPL677. Formerly: EDCI682.

Understanding the profession of teaching, teacher leadership, and the knowledge base that undergirds the teaching profession. Multiple perspectives on teaching in the current debate on school reform and how they are aligned across the political spectrum.

Contact department for information to register for this course.

TLPL678 **Professional Seminar in Education**

Credits: 1-3 Grading Method: Regular, Audit, Sat-Fail

Seminar on the issues and problems teacher candidates encounter in classrooms. Exploration of the skills and strategies that best address these challenges.

IH62	Dana Grosser-Clarkson Contact instructor or department for details. *MCERT Program Outreach Offering. Registration restricted to program participants.*	Seats (Total: 30)
IH63	Tranae Johnson Contact instructor or department for details. *MCERT Program Outreach Offering. Registration restricted to program participants.*	Seats (Total: 30)
IH65	Melissa Welsh Contact instructor or department for details.	Seats (Total: 5)

TLPL688D **Special Topics in Education; ELL Language Variation**

Credits: 1 Grading Method: Regular, Audit, Sat-Fail

Special treatment of current topics and issues in teaching, learning, policy and leadership.

Contact department for information to register for this course.

TLPL688E **Special Topics in Education; Digital Learning Tools and Communities**

Credits: 1 Grading Method: Regular, Audit, Sat-Fail

Special treatment of current topics and issues in teaching, learning, policy and leadership.

MCERT Program Outreach Offering. Registration restricted to program par ticipants.

Contact department for information to register for this course.

TLPL688G **Special Topics in Education; Linguistic Diversity and English Learners in Secondary Classrooms**

Credits: 1-3 Grading Method: Regular, Audit, Sat-Fail

Special treatment of current topics and issues in teaching, learning, policy and leadership.

IH63	Loren Jones W 5:00pm - 8:00pm Class time/details on ELMs	Seats (Total: 25) Location: TBA ONLINE
IH64	Loren Jones W 5:00pm - 8:00pm Class time/details on ELMs	Seats (Total: 25) Location: TBA ONLINE

TLPL688W **Special Topics in Education; Foundations in Arts Integration**

Credits: 3 Grading Method: Regular, Audit, Sat-Fail

Special treatment of current topics and issues in teaching, learning, policy and leadership.

0101	Dale Placek Th 4:30pm - 7:15pm	Seats (Total: 20) EDU 1315

TLPL689 **Internship in Education; Teaching Internship**

(Perm req)

Credits: 1-9 Grading Method: Regular, Audit, Sat-Fail

Internship or residency experiences in school settings with appropriate supervision. Credit not to be granted for experience accrued prior to registration. Open only to students admitted to approved teacher education programs.

0101	Perla Blejer Contact instructor or department for details.	Seats (Total: 5)
0201	Loren Jones Contact instructor or department for details.	Seats (Total: 5)
CE10	Melissa Welsh Contact instructor or department for details.	Seats (Total: 5)

TLPL691 **Research Methods**

Credits: 3 Grading Method: Regular, Audit, Sat-Fail

Credit only granted for: EDCI685 or TLPL691. Formerly: EDCI685.

The interpretation and conduct of research relevant to curriculum, teaching and learning.

0101	Wayne Slater	Seats (Total: 25)
	Th 5:00pm - 7:45pm	EDU 2121

TLPL698 **Conducting Research on Teaching; Conducting Research on Teaching**

(Perm req)

Credits: 1-3 Grading Method: Regular, Sat-Fail

Analysis and improvement of educational practice. Research methods used in the study of classroom teaching. Design and conduct of an action research project. Open only to students admitted to approved teacher education programs.

0101	Instructor: TBA	Seats (Total: 10)
	Contact instructor or department for details.	
	Contact department or instructor for details.	

TLPL699 **Master's Seminar**

Credits: 3 Grading Method: Regular, Audit, Sat-Fail

Directed study for master's degree students writing seminar papers.

Contact department for information to register for this course.

TLPL703 **Research on Technology in Education**

Credits: 3 Grading Method: Regular, Audit, Sat-Fail

Credit only granted for: EDCI788Q or TLPL703. Formerly: EDCI788Q. Additional information: Priority will be given to students in the Technology Learning and Leadership specialization.

Students explore the research methodologies used by those doing research with and on learning technologies, focusing on cultural, experimental, design and learning analytic approaches. Emphasis will be on asking meaningful research questions related to technology and exploring methodological and analytical approaches for answering them. This course will also explore research methods that examine the efficacy of new technologies, research about technology, design methods.

0101	David Weintrop	Seats (Total: 15)
	Tu 4:15pm - 7:00pm	EDU 1121

TLPL708A **Research Seminar in Technology, Learning & Leadership; Seminar**

Credits: 1 Grading Method: Regular, Audit, Sat-Fail

Read, plan, conduct, and report on research projects and research topics related to Technology, Learning & Leadership. Projects may be faculty/student projects, or group or individual student projects (may or may not be related to a dissertation). Emphasis on framing researchable questions and designing/analyzing research studies. Faculty and peer feedback and interaction are crucial expectations.

0101	David Weintrop	Seats (Total: 10)
	Tu 1:00pm - 1:50pm	EDU 3236

TLPL711 **Foundations of Mathematics Education II: Theory and Research on Mathematics Teaching**

Credits: 3 Grading Method: Regular, Audit, Sat-Fail

Prerequisite: TLPL710; or permission of EDUC-Teaching and Learning, Policy and Leadership department. Credit only granted for: EDCI752 or TLPL711. Formerly: EDC752.

Knowledge of and insights into how mathematics has been and is being taught; theories about how it might be taught. Familiarity with the methods used to do research on teaching and to improve teaching.

0101	Imani Goffney	Seats (Total: 10)
	M 10:00am - 12:45pm	EDU 2212A

TLPL720 **Foundations of Science Education**

Credits: 3 Grading Method: Regular, Audit, Sat-Fail

Prerequisite: TLPL620 or TLPL625; or permission of EDUC-Teaching and Learning, Policy and Leadership department. Credit only granted for: EDCI770 or TLPL720. Formerly: EDCI770.

Development of science education pre-kindergarten through college; the influences on current and future practices; and the identification and critical analysis of topics in science education.

0101	Diane Ketelhut	Seats (Total: 20)
	M 4:15pm - 7:00pm	EDU 2212

TLPL728 **Research Seminar in Mathematics and Science Education**

(Perm req)

Credits: 1

Grading Method: Regular, Audit, Sat-Fail

Read, plan, conduct, and report on research projects and research topics in mathematics and science education. Projects may be faculty/student projects, or group or individual student projects (may or may not be related to a dissertation). Emphasis on framing researchable questions and designing/analyzing research studies. Faculty and peer feedback and interaction are crucial expectations.

0101	Andrew Elby	Seats (Total: 25)
	F 9:00am - 11:00am	EDU 2121

TLPL788C **Special Topics in Education; Literacy for Quantitative Methods**

Credits: 3

Grading Method: Regular, Audit, Sat-Fail

Special and intensive treatment of current topics and issues in teaching, learning, policy and leadership.

0101	Claudia Galindo	Seats (Total: 20)
	M 4:15pm - 7:00pm	EDU 1121

TLPL788F **Special Topics in Education; Policy and Politics of Education Reform**

Credits: 3

Grading Method: Regular, Audit, Sat-Fail

Special and intensive treatment of current topics and issues in teaching, learning, policy and leadership.

0101	Betty Malen	Seats (Total: 24)
	Th 4:15pm - 7:00pm	EDU 2119

TLPL788G **Special Topics in Education; Critical Race Theory**

Credits: 3

Grading Method: Regular, Audit, Sat-Fail

Special and intensive treatment of current topics and issues in teaching, learning, policy and leadership.

0101	Rossina Liu	Seats (Total: 20)
	Tu 4:15pm - 7:00pm	EDU 2212

TLPL788I **Special Topics in Education; Research Apprenticeship in the Maryland Longitudinal Data System**

Credits: 1

Grading Method: Regular, Audit, Sat-Fail

Special and intensive treatment of current topics and issues in teaching, learning, policy and leadership.

Students interested in enrolling in this course should first discuss their research ideas and interests with Dr. Blazar. Meeting times will be arranged collectively around students' schedules. Please contact Dr. Blazar (dblazar@umd.edu) for details.

0101	David Blazar	Seats (Total: 20)
	Contact instructor or department for details.	

TLPL788J **Special Topics in Education; Introduction to Interaction Analysis**

Credits: 3

Grading Method: Regular, Audit, Sat-Fail

Special and intensive treatment of current topics and issues in teaching, learning, policy and leadership.

0101	Janet Walkoe	Seats (Total: 10)
	Contact instructor or department for details.	

TLPL788K **Special Topics in Education; Seminar in Teaching and Supervision**

Credits: 1

Grading Method: Regular, Audit, Sat-Fail

Special and intensive treatment of current topics and issues in teaching, learning, policy and leadership.

This course meets bi-weekly, starting January 29th

0101	Jennifer Burris, Olivia Murphy	Seats (Total: 15)
	W 1:00pm - 3:00pm	EDU 1107

TLPL788L **Special Topics in Education; Participatory Action Research**

Credits: 3

Grading Method: Regular, Audit, Sat-Fail

Special and intensive treatment of current topics and issues in teaching, learning, policy and leadership.

0101	Tara Brown	Seats (Total: 20)
	Th 4:15pm - 7:00pm	EDU 1107

TLPL788M **Special Topics in Education; Learning in and Out of Schools**

Credits: 3 Grading Method: Regular, Audit, Sat-Fail

Special and intensive treatment of current topics and issues in teaching, learning, policy and leadership.

0101	Kellie Rolstad W 4:15pm - 7:00pm	Seats (Total: 20) JMZ 1124

TLPL788X **Special Topics in Education; Contested Control**

Credits: 3 Grading Method: Regular, Audit, Sat-Fail

Special and intensive treatment of current topics and issues in teaching, learning, policy and leadership.

0101	Campbell Scribner W 4:15pm - 7:00pm	Seats (Total: 20) ASY 3211

TLPL788Z **Special Topics in Education; Education Policy Research, Writing, and Presentation Seminar**

Credits: 1 Grading Method: Regular, Audit, Sat-Fail

Special and intensive treatment of current topics and issues in teaching, learning, policy and leadership.

0101	David Blazar F 12:00pm - 12:50pm	Seats (Total: 20) EDU 1121

TLPL789 **Internship in Education**

Credits: 1-3 Grading Method: Sat-Fail

Approved professional experiences with appropriate supervision. Open only to students admitted to approved master's and doctoral specializations.

Contact department for information to register for this course.

TLPL790 **Seminar in Mixed Methods Research in Education**

(Perm req)

Credits: 3 Grading Method: Regular, Audit, Sat-Fail

Prerequisite: EDMS646; and (EDCI791 or EDHI700); and permission of EDUC-Teaching and Learning, Policy and Leadership department. Recommended: EDCI792. Credit only granted for: EDCI775 or TLPL790. Formerly: EDCI775.

Examination of epistemological and methodological issues involved in conducting mixed methods studies in education. Students design and conduct analyses using existing datasets that include qualitative and quantitative data. They formulate appropriate research questions, consider alternative mixed methods designs, and address methodological complexities associated with working with qualitative and quantitative data in a single study.

0101	Andrew Brantlinger	Seats (Total: 20)
	M 4:15pm - 7:00pm	JMZ 0122

TLPL792 **Qualitative Research II: Analysis and Interpretation of Data**

(Perm req)

Credits: 3 Grading Method: Regular, Audit, Sat-Fail

Prerequisite: TLPL791. Credit only granted for: TLPL792 or EDCI792. Formerly: EDCI792.

Considers methods of on-going data analysis, ways of knowing and writing about field research, issues of reflexivity, and the ethical and political decisions involved in crafting text. Students read literature on and exemplars of multiple modes of qualitative data analysis and interpretation.

0101	Tara Brown	Seats (Total: 20)
	W 4:15pm - 7:00pm	EDU 2119

TLPL795 **Foundations of Educational Research II**

(Perm req)

Credits: 3 Grading Method: Regular, Sat-Fail

Restriction: Must be in Teaching and Learning, Policy and Leadership (Doctoral) program. Credit only granted for: EDPS788T or TLPL795. Formerly: EDPS788T.

Students engage in the process of conceptualizing and completing a rigorous review of a section of literature in their area of specialization.

0101	Diane Ketelhut	Seats (Total: 24)
	Th 4:15pm - 7:00pm	EDU 3236

TLPL798 **Special Problems in Education**

(Perm req)

Credits: 1-6 Grading Method: Regular, Audit, Sat-Fail

Exploration of current problems in teaching, learning, policy and leadership. Available only to master's or doctoral candidates under the direction of their advisors.

Contact department for information to register for this course.

TLPL798B **Special Problems in Education; Political Context for Teacher Education**

Credits: 1 Grading Method: Regular, Audit, Sat-Fail

Exploration of current problems in teaching, learning, policy and leadership. Available only to master's or doctoral candidates under the direction of their advisors.

This course meets the first Wednesday of the month from February to May

0101	David Imig	Seats (Total: 15)
	W 11:15am - 2:40pm	EDU 2212A

TLPL799 **Master's Thesis Research**

(Perm req)

Credits: 1-6 Grading Method: Sat-Fail

Contact department for information to register for this course.

TLPL888 **Apprenticeship in Education**

(Perm req)

Credits: 1-8 Grading Method: Regular, Audit, Sat-Fail

Apprentice practice under professional supervision in an area of competence compatible with the student's professional goals. Credit not to be granted for experience accrued prior to registration. Open only to degree- and certificate-seeking graduate students.

Contact department for information to register for this course.

TLPL889 **Internship in Education**

(Perm req)

Credits: 3-8 Grading Method: Regular, Audit, Sat-Fail

Internship experiences at a professional level of competence in a particular role with appropriate supervision. Credit not to be granted for experience accrued prior to registration. Open only to students advanced to candidacy for doctoral degree.

Contact department for information to register for this course.

TLPL898 **Pre-Candidacy Research**

Credits: 1-8 Grading Method: Regular, Sat-Fail

Contact department for information to register for this course.

TLPL899 **Doctoral Dissertation Research**

(Perm req)

Credits: 1-8 Grading Method: Sat-Fail

Registration required to the extent of 6-9 hours for an Ed.D. Project and 12-18 hours for a Ph.D. Dissertation.

Contact department for information to register for this course.

TLTC Teaching and Learning Transformation Center Spring 2020

TLTC333 **Fundamentals of Academic Peer Mentoring**

(Perm req)

Credits: 1 Grading Method: Regular, Pass-Fail

Restriction: Permission of TLTC required - enrollment restriction.

How should scientific research influence the way we study and advance the academic performance of others? Learn about the scholarship of teaching and learning and develop the applied skills to support active learning as an academic peer mentor. Whether or not you ultimately pursue a career as an educator, the more effectively you can coach and support the performance of other people, and the more successful you will be. Guided online and face-to-face participation will culminate in a portfolio of your teaching activities and professional development.

Click here for more course information.

0101	Hannah Jardine, Danielle Pafe Class time/details on ELMs M 10:00am - 10:50am	Seats (Total: 40) ONLINE ESJ 0201
	This section will meet in person on the following dates: February 10, March 9, and April 13.	
0102	Hannah Jardine, Danielle Pafe Class time/details on ELMs M 11:00am - 11:50am	Seats (Total: 40) ONLINE ESJ 0201
	This section will meet in person on the following dates: February 10, March 9, and April 13.	
0103	Danielle Pafe, Hannah Jardine Class time/details on ELMs M 2:00pm - 2:50pm	Seats (Total: 40) ONLINE ESJ 0201
	This section will meet in person on the following dates: February 10, March 9, and April 13.	

0104	Hannah Jardine, Danielle Pafe Class time/details on ELMs M 3:00pm - 3:50pm	Seats (Total: 40) ONLINE ESJ 0201
	This section will meet in person on the following dates: February 10, March 9, and April 13.	
0105	Hannah Jardine, Danielle Pafe Class time/details on ELMs Tu 12:30pm - 1:20pm	Seats (Total: 40) ONLINE ESJ 0201
	This section will meet in person on the following dates: February 11, March 10, and April 14.	
0106	Hannah Jardine, Danielle Pafe Class time/details on ELMs Tu 2:00pm - 2:50pm	Seats (Total: 40) ONLINE ESJ 0201
	This section will meet in person on the following dates: February 11, March 10, and April 14.	
0107	Hannah Jardine, Danielle Pafe Class time/details on ELMs Tu 3:30pm - 4:20pm	Seats (Total: 40) ONLINE ESJ 0201
	This section will meet in person on the following dates: February 11, March 10, and April 14.	

TLTC399 **Independent Study in Academic Peer Mentoring**

(Perm req)

Credits: 1-3 Grading Method: Regular, Pass-Fail

Earn academic credit for the time spent supporting a course in TLTC's Academic Peer Mentoring Program (AMP).

Prerequisite: Must have completed or be concurrently enrolled in TLTC333. Restriction: Permission of TLTC required - enrollment restriction. Repeatable to 6 credits. Earn academic credit for the time spent supporting a course in TLTC's Academic Peer Mentoring Program (AMP).

Contact department for information to register for this course.

TLTC499A **Independent Study in Teaching and Learning**

(Perm req)

Credits: 1-3 Grading Method: Regular, Pass-Fail

Earn academic credit for the time spent supporting TLTC's educational development programs and/or engaging in the scholarship of teaching and learning.

Prerequisite: Must have completed TLTC333. Restriction: Permission of TLTC department required. Contact department for information to register for this course.

0101	Hannah Jardine, Danielle Pafe	Seats (Total: 10)
	Contact instructor or department for details.	

TLTC798 **University Teaching and Learning**

(Perm req)

Credits: 1-2 Grading Method: Regular, Sat-Fail

Special topic courses directed at experienced graduate teaching assistants who are interested in university teaching and learning issues. Can be used by students for participation in the Universtiy Teaching and Learning Program.

Restriction: Permission of TLTC-Teaching and Learning Transformation Center. Repeatable to 6 credits if content differs. Formerly: UNIV798. Special topic courses directed at experienced graduate teaching assistants who are interested in university teaching and learning issues. Can be used by students for participation in the University Teaching and Learning Program.

0101	Marissa Stewart	Seats (Total: 20)
	Tu 2:00pm - 4:00pm	ESJ 1103

UMEI Maryland English Institute Spring 2020

UMEI002 **English as a Foreign Language: Intermediate I**

(Perm req)

Credits: 12 Grading Method: Sat-Fail

Restriction: Permission of EDUC-Dean-Maryland English Institute department.

Intensive course for the non-native speaker of English who has had some previous instruction in English. Emphasis on improving listening and speaking skills, on mastering intermediate grammatical structures, and on expanding vocabulary. Includes practice in reading and writing appropriate to the level. Special fee required for this course. This course does not carry credit towards any degree at the University and does not count in the retention plan.

0101	Caralyn Bushey, Heather Mehrtens	Seats (Total: 10)
	MTuWThF 9:00am - 11:50am	HBK 0108
	MTuWThF 1:00pm - 2:50pm	HBK 1112

UMEI003 **English as a Foreign Language: Intermediate II**

(Perm req)

Credits: 12 Grading Method: Sat-Fail

Restriction: Permission of EDUC-Dean-Maryland English Institute department.

Intensive course for the non-native speaker of English who has mastered the essential structures of English grammar. Emphasis on improving communicative skills for a wide range of linguistic situations, on rapid expansion of vocabulary, and on improving reading comprehension and basic writing skills. Special fee required for this course. This course does not carry credit towards any degree at the University and does not count in the retention plan.

0101	Caralyn Bushey, Heather Mehrtens	Seats (Total: 10)
	MTuWThF 9:00am - 11:50am	HBK 0108
	MTuWThF 1:00pm - 2:50pm	HBK 1112

UMEI004 **English as a Foreign Language: Intermediate III**

(Perm req)

Credits: 12 Grading Method: Sat-Fail

Restriction: Permission of EDUC-Dean-Maryland English Institute department.

Intensive course for the non-native speaker of English who has a good command of the basic features of spoken and written English. Emphasis on refining speaking and listening skills, on improving reading speed and comprehension of academic texts, and on developing writing skills for academic courses. Special fee required for this course. This course does not carry credit towards any degree at the University and does not count in the retention plan.

0101	Annelies Galletta, Raymond Smith	Seats (Total: 16)
	MTuWThF 9:00am - 11:50am	COL 3110
	MTuWThF 1:00pm - 2:50pm	COL 3110
0301	Louise Godley, Marilena Draganescu	Seats (Total: 16)
	MTuWThF 9:00am - 11:50am	COL 3109
	MTuWThF 1:00pm - 2:50pm	COL 3109

UMEI005 **Advanced English as a Foreign Language**

Credits: 6 Grading Method: Sat-Fail, Audit

Semi-intensive course for the nearly proficient non-native speaker of English needing additional language instruction prior to undertaking full-time academic study. Speaking and listening skills; improvement of reading speed and comprehension; and development of writing skills. Special fee required for this course. This course does not carry credit towards any degree at the University and does not count in the retention plan.

0101	Charles Duquette MTuThF 10:00am - 11:50am *This section is restricted to Graduate Students.*	Seats (Total: 12) JMZ 1123
0601	Cornell Brellenthin MTuThF 1:00pm - 2:50pm *Restricted to Undergraduate students.*	Seats (Total: 12) JMZ 1123

UMEI006 **English Pronunciation**

Credits: 2 Grading Method: Sat-Fail, Audit

Restriction: Must have graduate standing.

Individualized class for the non-native speaker of English. Diagnosis of individual pronunciation problems. Practice in the correct pronunciation of English sounds and improvement of ability to speak English with proper stress and intonation patterns. Special fee required for this course. This course does not carry credit towards any degree at the University and does not count in the retention plan.

0101	Charles Duquette MW 1:00pm - 2:30pm	Seats (Total: 15) CHE 2145

UMEI007 **Advanced Writing for International Students**

Credits: 3 Grading Method: Sat-Fail, Audit

Restriction: Must have graduate standing.

A writing skills course for the non-native speaker of English with a good command of spoken English. This course does not carry credit towards any degree at the University and does not count in the retention plan.

0201	Marilena Draganescu TuTh 9:00am - 10:50am	Seats (Total: 12) HBK 0125
0301	Cornell Brellenthin TuTh 6:00pm - 7:50pm	Seats (Total: 12) COL 3109
0401	Eda Aladagli Yoon MW 10:00am - 11:50am	Seats (Total: 12) ITV 1111

0601	Eda Aladagli Yoon MW 1:00pm - 2:50pm	Seats (Total: 12) SQH 1125
0901	Heather Mehrtens TuTh 9:00am - 10:50am	Seats (Total: 12) JMZ 1117
1001	Eric Walker TuTh 11:00am - 12:50pm	Seats (Total: 12) EGR 3111
1101	Eric Walker TuTh 1:00pm - 2:50pm	Seats (Total: 12) HBK 0108
1201	Marilena Draganescu MW 9:00am - 10:50am	Seats (Total: 12) ATL 2316
1401	Heather Mehrtens MW 9:00am - 10:50am	Seats (Total: 12) WDS 1131

UNIV University Courses Spring 2020

UNIV099 **Internship Seminar**

(Perm req)

Credits: 0 Grading Method: Sat-Fail

Complements students' supervised work experiences. Open to all majors; all class levels. Involves exploring career options, developing professional work skills, examining the relationship between internship and academic coursework. Course may be repeated.

Restriction: Must have earned a minimum cumulative GPA of 2.0 (undergraduates) or 3.0 (graduate students); and Permission of the Career Center; and permission of instructor.

0101	Trisha Hongcharti, Erica Ely Contact instructor or department for details.	Seats (Total: 50)

UNIV100 **The Student in the University**

Credits: 1 Grading Method: Regular, Pass-Fail, Audit

Credit only granted for: EDCP108O or UNIV100. Formerly: EDCP108O.

Introduces students to University life. In a small classroom setting, students will explore how to successfully bridge the gap between high school and college. Study skills, career decision-making, and student development processes will be explored.

0101	Esme Pierzchala M 2:00pm - 3:50pm *Restricted to First Semester BSOS Students.*	Seats (Total: 15) KEY 0124
0801	Thomas Steen M 3:00pm - 4:50pm *Restricted to First Semester Letters and Sciences Students.*	Seats (Total: 20) PLS 1113
0901	Malik Blue Th 2:00pm - 4:00pm	Seats (Total: 30) HJP 1102

UNIV106 **The Transfer Student in the University**

Credits: 1 Grading Method: Regular, Pass-Fail, Audit

Restriction: Must be a first-semester Letters and Sciences transfer student. Credit only granted for: UNIV106 or EDCP108G.

For transfer students in Letters and Sciences. This course is designed to assist students in making a successful transition to the University of Maryland (UMD) and to serve as an extended orientation to campus living and learning.

0101	Jeffrey Kodis Tu 2:00pm - 3:15pm	Seats (Total: 20) EGR 3114
0102	Melissa Hyre Th 11:00am - 12:15pm	Seats (Total: 19) ARC 1125
0103	JV Sapinoso W 3:00pm - 4:15pm	Seats (Total: 20) JMZ 0120

UNIV107 **Science Technology Engineering Mathematics Colloquium**

Credits: 1 Grading Method: Regular, Pass-Fail

Restriction: Must be a current student in Letters & Sciences.

For students interested in pursuing a STEM related major. Introduces students to the fundamentals of career and major exploration and career development within the various disciplines of STEM.

0808	Ashley Luster **Meets January 30, 2020 - April 18, 2020** W 3:00pm - 3:50pm M 3:00pm - 3:50pm	Seats (Total: 20) SYM 0200 HBK 0123	 Discussion
0811	Suzanne Ashour-Bailey **Meets January 30, 2020 - April 18, 2020** W 3:00pm - 3:50pm M 3:00pm - 3:50pm	Seats (Total: 20) SYM 0200 PLS 1164	 Discussion

UNIV108 **Business Exploration Series Colloquium**

Credits: 1 Grading Method: Regular, Pass-Fail

For students interested in pursuing a business career. Students learn the fundamentals of career development and what the internship/job search process entails.

Restriction: Must be a current student in Letters and Science. For students interested in pursuing a business career. Students learn the fundamentals of career development and what the internship/job search process entails.

0162	Gabriela Hernandez, Lisa Scheeler M 4:00pm - 4:50pm W 3:00pm - 3:50pm	Seats (Total: 23) MMH 1400 HBK 1108	 Discussion
0163	Lisa Scheeler, Gabriela Hernandez M 4:00pm - 4:50pm W 4:00pm - 4:50pm	Seats (Total: 23) MMH 1400 HBK 1108	 Discussion
0164	Lisa Scheeler, Gabriela Hernandez M 4:00pm - 4:50pm Th 2:00pm - 2:50pm	Seats (Total: 23) MMH 1400 PLS 1115	 Discussion
0165	Gabriela Hernandez, Lisa Scheeler M 4:00pm - 4:50pm Tu 4:00pm - 4:50pm	Seats (Total: 23) MMH 1400 ASY 3219	 Discussion

UNIV190 **National Scholarships for International Goals**

Credits: 1 Grading Method: Regular, Pass-Fail, Audit

Restriction: Freshman or Sophomore Standing.

Prepares first- and second-year students with international interests such as study abroad, language learning, and international careers to apply for nationally competitive scholarships, including how to write an effective personal statement. The course will help students focus and explore their interests, and connect these interests to current events. It will be of particular interest to students preparing for service-oriented and internationally focused careers.

0101	Leslie Brice	Seats (Total: 20)
	M 4:00pm - 4:50pm	EDU 2119

UNIV269 **Connecting Across Cultures**

Credits: 1 | Grading Method: Regular, Pass-Fail, Audit | General Education: DVCC

An examination of culture to guide study abroad students through the stages of cross cultural adjustment and to promote cultural competency by providing the motivation, knowledge and skills necessary to work with diverse individuals and teams.

Contact department for information to register for this course.

UNIV269A **Connecting Across Cultures; Cultural Realities of Spain**

Credits: 1 | Grading Method: Regular, Pass-Fail, Audit | General Education: DVCC

An examination of culture to guide study abroad students through the stages of cross cultural adjustment and to promote cultural competency by providing the motivation, knowledge and skills necessary to work with diverse individuals and teams.

Contact department for information to register for this course.

UNIV362 **Designing Your Life after College**

Credits: 2 | Grading Method: Regular, Pass-Fail

Restriction: Must have earned a minimum of 60 credits.

This course helps students anticipate and prepare for changes in finances, social life, health, and career dynamics they are likely to experience as they transition from college to working full-time. It focuses on understanding what resources students have as they enter the workforce as critical for navigating post-graduation changes successfully. It offers an overview of financial, risk management and professional development approaches to increase students' confidence regarding post-graduation decisions; in addition, it develops their creative problem solving and reflection skills to help them align the outcomes of their decisions with their values.

0101	Allison Gibeily, Cynthia Stevens **Meets January 27, 2020 - April 13, 2020** Tu 4:00pm - 6:30pm	Seats (Total: 20) JMZ 2117
0102	Gerry Strumpf **Meets January 27, 2020 - April 13, 2020** Tu 4:00pm - 6:30pm	Seats (Total: 24) JMZ 2122
0103	Ann Holmes, TC Lloyd **Meets January 27, 2020 - April 13, 2020** Tu 4:00pm - 6:30pm	Seats (Total: 20) JMZ 2125
0104	Chetachukwu Agwoeme **Meets January 27, 2020 - April 13, 2020** Tu 4:00pm - 6:30pm	Seats (Total: 20) JMZ 1215
0105	Matthew Hicks **Meets January 27, 2020 - April 13, 2020** Tu 4:00pm - 6:30pm	Seats (Total: 20) JMZ 1224

UNIV389A **Special Topics in Undergraduate Studies; Army ROTC Independent Study Projects**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Courses will focus on interdisciplinary topics and will be planned in cooperation with Undergraduate Studies.

0101	James Choi Contact instructor or department for details.	Seats (Total: 10)
0102	Ashley Miller Contact instructor or department for details.	Seats (Total: 10)
0103	Marisa Pace Contact instructor or department for details.	Seats (Total: 10)

UNIV389J **Special Topics in Undergraduate Studies; Federal Independent Study Projects**

(Perm req)

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Courses will focus on interdisciplinary topics and will be planned in cooperation with Undergraduate Studies.

0101	Nazanine Beyranvand, Joan Burton	Seats (Total: 25)
	Contact instructor or department for details.	

UNIV389K **Special Topics in Undergraduate Studies; Special Topics in Experiential Learning Global Semester**

(Perm req)

Credits: 3 Grading Method: Regular, Pass-Fail

Courses will focus on interdisciplinary topics and will be planned in cooperation with Undergraduate Studies.

0101	Joan Burton, Jayakumar Arasan	Seats (Total: 38)
	Contact instructor or department for details.	
0201	Joan Burton, Jayakumar Arasan	Seats (Total: 38)
	Contact instructor or department for details.	

UNIV399 **Experiential Learning in Undergraduate Studies**

(Perm req)

Credits: 1-3 Grading Method: Regular, Pass-Fail, Audit

Experiential learning offered in conjunction with certain designated Office of Undergraduate Studies programs.

0101	Nazanine Beyranvand, Joan Burton	Seats (Total: 10)
	Contact instructor or department for details.	

URSP Urban Studies and Planning Spring 2020

URSP399I **Independent Study**

(Perm req)

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Directed research and study of selected aspects of urban affairs.

Contact department for information to register for this course.

URSP600 **Research Design and Application**

Credits: 3 Grading Method: Regular, Sat-Fail

Formerly: URSP602.

Techniques in urban research, policy analysis, and planning. Survey of descriptive and normative models. Objective and subjective measurements. Emphasis on assumptions of research.

0101	Ariel Bierbaum	Seats (Total: 25)
	M 4:00pm - 6:40pm	ASY 3219

URSP601 **Research Methods**

Credits: 3 Grading Method: Regular, Audit, Sat-Fail

Recommended: An undergraduate-level statistics course; and familiarity with Microsoft Excel. Formerly: URBS601.

Use of measurement, statistics, quantitative analysis, and micro-computers in urban studies and planning.

0101	Chengri Ding	Seats (Total: 15)
	Th 4:00pm - 6:40pm	Location: TBA

URSP604 **The Planning Process**

Credits: 3 Grading Method: Regular, Audit, Sat-Fail

Credit only granted for: URSP604, URBS656, or URBS604. Formerly: URBS604.

Legal framework for U.S. planning; approaches to the planning process; tools and technology; systems thinking; defining problems and issues; soliciting goals and values; developing and making good presentations; public participation; developing and evaluating alternatives and scenarios; plan evaluation; developing RFPs.

0101	Ariel Bierbaum	Seats (Total: 20)
	Tu 4:00pm - 6:40pm	ARC 1105

URSP606 **Planning Economics**

Credits: 3 Grading Method: Regular, Sat-Fail

Restriction: Must not have completed URSP630. Credit only granted for: URSP606, URBS606, or URBS630. Formerly: URBS606.

Resource allocation in a market economy, the nature of market failures, and the justifications for public sector intervention. The limits and possibilities for planning in a market economy.

0101	Chengri Ding Tu 4:00pm - 6:30pm	Seats (Total: 19) ARC 1119

URSP631 **Transportation and Land Use**

(Perm req)

Credits: 3

Grading Method: Regular, Audit, Sat-Fail

Credit only granted for: URSP631 or URSP688L. Formerly: URSP688L.

The interrelationship between transportation and land use. What are the impacts of various transportation modes on land use patterns, and how can land use solutions influence travel demand. The integration of transportation into master planning and site impact analysis. Using quantitative methods to understand the land use and transportation linkage.

0101	Mary Breinholt W 4:00pm - 6:40pm	Seats (Total: 19) ARC 1119

URSP640 **Growth Management and Environmental Planning**

Credits: 3

Grading Method: Regular, Audit, Sat-Fail

Topics associated with growth management, defined as policies and strategies by which governments attempted to control the amount, location, pace, pattern and quality of development within their jurisdictions.

0101	Royce Hanson Tu 1:00pm - 3:40pm	Seats (Total: 25) ARC 1119

URSP661 **City and Regional Economic Development Planning**

Credits: 3

Grading Method: Regular, Audit, Sat-Fail

Prerequisite: URSP606 or URSP660. Credit only granted for: URSP661, URBS440, or URBS661. Formerly: URBS661.

Spatial patterns of employment and populations, and models of urban and regional growth and decline. Focus on application of economic theory and urban planning techniques to issues of local economic development and planning.

0101	Christopher Dempwolf W 7:00pm - 9:40pm	Seats (Total: 19) ARC 1119

URSP673 **Community Development**

Credits: 3

Grading Method: Regular, Audit, Sat-Fail

Examines and identifies planning approaches and methods that can help communities - particularly low income communities - become stronger, more cohesive, and more capable of serving their interests. Examines urban poverty; urban politics; history, concepts and practice of community development; and community development approaches and methods.

0101	Brittany Wong, Brittney Drakeford	Seats (Total: 25)
	Th 7:00pm - 9:40pm	ARC 1105

URSP688A **Recent Developments in Urban Studies; Community Resilience**

Credits: 3

Grading Method: Regular, Audit, Sat-Fail

Examination of selected current aspects of urban affairs and planning, including, for example, in the United States or neighborhood preservation in Russia. Location of course may be off-campus.

0101	Marccus Hendricks	Seats (Total: 25)
	M 7:00pm - 9:40pm	ARC 0111

URSP688M **Recent Developments in Urban Studies; Intermediate Geographic Information Systems**

Credits: 3

Grading Method: Regular, Audit, Sat-Fail

Examination of selected current aspects of urban affairs and planning, including, for example, in the United States or neighborhood preservation in Russia. Location of course may be off-campus.

0101	Andrew McMillan	Seats (Total: 20)
	Th 4:00pm - 6:40pm	ARC 0111

URSP688O **Recent Developments in Urban Studies; US Housing Policy & Planning**

Credits: 3

Grading Method: Regular, Audit, Sat-Fail

Examination of selected current aspects of urban affairs and planning, including, for example, in the United States or neighborhood preservation in Russia. Location of course may be off-campus.

0101	Casey Dawkins	Seats (Total: 15)
	W 4:00pm - 6:40pm	PKT 1112V

URSP688Y **Recent Developments in Urban Studies; Smart Cities and Urban Data Science**

Credits: 3 Grading Method: Regular, Audit, Sat-Fail

Examination of selected current aspects of urban affairs and planning, including, for example, in the United States or neighborhood preservation in Russia. Location of course may be off-campus.

Cross-listed with URSP688Y. Credit granted for URSP688Y or INST728G.

0101	Christopher Dempwolf M 4:00pm - 6:40pm	Seats (Total: 30) ARC 1119

URSP709 **Field Instruction**

Credits: 3 Grading Method: Regular, Audit, Sat-Fail

Students will satisfy a 300-hour internship (20 hours for 15 weeks during the spring, 25 hours a week for 12 weeks during the summer). Suitable internships are approved by the Internship Coordinator or Instructor; they involve a significant amount of planning work (preferably in the student's are of interest) and provide an appropriate on-site supervisor. The Internship Coordinator will assist students in finding a suitable internship, but the ultimate responsibility rests with each student. Whether the internship is paid or not is a matter to be worked out between the student and the organization.

Prerequistes: URSP600, URSP604, URSP605 or permission of the department.

0101	Casey Dawkins Contact instructor or department for details.	Seats (Total: 10)
1001	Gerrit Knaap Contact instructor or department for details.	Seats (Total: 5)
1201	Chengri Ding Contact instructor or department for details.	Seats (Total: 5)
1401	Marccus Hendricks Contact instructor or department for details.	Seats (Total: 5)
1501	Ariel Bierbaum Contact instructor or department for details.	Seats (Total: 5)
1601	Hiroyuki Iseki Contact instructor or department for details.	Seats (Total: 5)
1701	Casey Dawkins Contact instructor or department for details.	Seats (Total: 5)

2103	Willow Lung Amam	Seats (Total: 5)
	Contact instructor or department for details.	

URSP788 **Independent Study in Urban Studies and Planning**

(Perm req)

Credits: 1-3 Grading Method: Regular, Audit, Sat-Fail

Directed research and study of selected aspects of urban affairs.

Contact department for information to register for this course.

URSP798 **Readings in Urban Studies and Planning**

(Perm req)

Credits: 1-3 Grading Method: Regular, Audit, Sat-Fail

Directed readings in selected aspects of urban affairs and planning.

Contact department for information to register for this course.

URSP799 **Master's Thesis Research**

Credits: 1-6 Grading Method: Sat-Fail

Contact department for information to register for this course.

URSP805 **Seminar in Research Design**

Credits: 3 Grading Method: Regular, Sat-Fail

Prerequisite: URSP804 and URSP810.

Addresses fundamental aspects of research desing for Ph.D students in urban planning and policy-related fields. Topics include principles of research design, formulating a feasible hypothesis and identifying appropriate methodology for testing hypotheses eg. qualitative methods, quantitative methods, survey research. Writing of proposals and dissertation. Publication, presentation, and funding.

0101	Sevgi Erdogan	Seats (Total: 15)
	Th 1:00pm - 3:40pm	ARC 1119

URSP898 **Pre-Candidacy Research**

Credits: 1-8 Grading Method: Sat-Fail

Selected topics in Urban Studies and Planning. Topics will vary with the instructor.

Contact department for information to register for this course.

URSP899 **Doctoral Dissertation Research**

(Perm req)

Credits: 6 Grading Method: Sat-Fail

This course is a required course for the Ph.D program in Urban and Regional Planning and Design.

Contact department for information to register for this course.

USLT Latina/o Studies Spring 2020

USLT202 **US Latina/o Studies II: A Contemporary Overview 1960's to present**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit CORE: SB, D

Interdisciplinary course on emerging populations of Latinos in the 20th century with a focus on the multiple waves of latino immigration as a result of neocolonialism, imperialism, globalization and transnationalism. Examines the positioning of immigrant waves in the political, sociocultural and historical contexts of US Latinidades.

0101	Robert Chester	Seats (Total: 30)
	TuTh 9:30am - 10:45am	TWS 0328

USLT318C **Topics in U.S. Latina/o; "Forging the Tortilla Curtain": US-Mexican Borderlands History, 1800-Present**

Credits: 3 Grading Method: Regular, Pass-Fail

Topics in U.S. Latina/o Studies

Crosslisted with HIST328A. Credit only granted for USLT318C or HIST328A.

0101	Chantel Rodriguez	Seats (Total: 40)
	TuTh 11:00am - 12:15pm	KEY 0126

USLT403 **Citizens, Refugees, and Immigrants**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Credit only granted for: USLT403, USLT498I, AMST498N, or IMMR419D. Formerly: USLT498I.

Citizenship, Refugee and Immigrant are guiding categories that often define the Latina/o community in the United States. Employing this analytical lens, this course critically engages with notions of exclusion and inclusion, which included documentation, status, race, gender, and power. To better understand how these ideas and processes work, students are introduced to the history of Latina/o migration, US immigration policies, racial formation theory, gender construction, borderland theory, and the politics of territoriality.

0101	Perla Guerrero	Seats (Total: 25)
	MW 2:00pm - 3:15pm	TWS 1106

USLT488B **US Latina/o Senior Seminar**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

A variable topics seminar that exposes students to interdisciplinary critical readings, writings, and research in U.S. Latina/o Studies. Interdisciplinary research methodologies are broadly addressed. Students will gain skills and practice in reading critical analytic texts and will develop writing skills.

A variable topics seminar that exposed students to interdisciplinary critical readings, writings, and research in U.S. Latina/o Studies. Interdisciplinary research methodologies are broadly addressed. Students will gain skills and practice in reading critical analytic texts and will develop writing skills.

0101	Nancy Mirabal	Seats (Total: 25)
	MWF 12:00pm - 12:50pm	TWS 0134

USLT498B **US Latina/o Studies: Special Topics; Latinas/os and U.S. Popular Culture**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Specific content to be announced when courses are offered.

0101	Robert Chester	Seats (Total: 25)
	TuTh 2:00pm - 3:15pm	TWS 0328

VMSC Veterinary Medical Sciences Spring 2020

VMSC688A **Special Topics in Veterinary Medical Sciences; Advances in Reverse Genetics of Animal Viruses**

Credits: 1-4 Grading Method: Regular, Sat-Fail

Lectures and discussions on current topics in veterinary medicine s as animal disease surveillance, risk analysis, molecular epidemiolo or fish pathology. Targeted at veterinary medicine (DVM) students a other graduate students with a background in veterinary medical sciences.

0101	Siba Samal	Seats (Total: 10)
	Contact instructor or department for details.	

VMSC689 **Use of Genomics and Proteomics in Infectious Disease**

Credits: 3

Grading Method: Regular, Audit, Sat-Fail

Focus is placed on current biotechnological development and recent research breakthroughs in the field of genomics and proteomics as it relates to infectious disease and drug/vaccine development.

0101	Utpal Pal, Daniel Nelson F 1:00pm - 4:00pm	Seats (Total: 15) Location: TBA

VMSC698 **Seminar in Veterinary Medical Science**

Credits: 1

Grading Method: Regular, Sat-Fail

Presentation and discussion of scientific publications, current topics and new methodologies related to veterinary medical sciences.

0101	Sean Riley Th 11:00am - 12:00pm Contact instructor or department for details.	Seats (Total: 20) Location: TBA

VMSC699 **Special Problems in Veterinary Medical Sciences**

Credits: 1-4

Grading Method: Regular, Sat-Fail

Independent study of a specific problem related to veterinary medicine such as a disease outbreak, application of a new diagnostic test or a risk analysis related to animal health. Targeted at veterinary medicine (DVM) students and other graduate students with a background in veterinary medicine.

Contact department for information to register for this course.

VMSC700 **Animal Health Policy and Communication**

Credits: 3

Grading Method: Regular, Audit, Sat-Fail

Recommended: ANSC225 and ANSC340. Restriction: Must be in a major in AGNR-VA-MD Regional Col Veterinary Med; or must be in a major within the AGNR-Animal & Avian Sciences department; or must be in a major in PUAF-School of Public Policy; or permission of AGNR-VA-MD Regional Col Veterinary Med.

An introduction to animal health policy with emphasis on understanding how science and politics interact and influence animal health policy and how veterinarians and animal scientists can effectively communicate science to non-scientists such as legislators and policymakers.

0101	Nathaniel Tablante TuTh 9:30am - 10:45am	Seats (Total: 10) ANS 0402

VMSC720 **Viral Pathogenesis**

Credits: 2 Grading Method: Regular, Audit, Sat-Fail

Restriction: Permission of instructor.

This course will teach graduate students about mechanisms of infections by animal and human viral pathogens, including virus-cell interactions, host responses, and consequences of virus infection. Particular attention will be focused on the molecular mechanisms of the interactions between virus and host.

0101	Yanjin Zhang	Seats (Total: 20)
	F 10:00am - 11:50am	Location: TBA

VMSC780 **Parasites of Medical and Veterinary Importance**

(Perm req)

Credits: 2 Grading Method: Regular, Sat-Fail

Restriction: Permission of instructor.

Provides students with the basic knowledge of parasites as well as research advancement in important parasites of humans and animals. Particular attention will be given to parasite biology, pathogenesis, and host responses to parasitic infection. A selection of parasites of medical and veterinary importance will be specifically covered with emphasis on recent research breakthroughs in the field.

Contact department for information to register for this course.

VMSC799 **Thesis Research**

Credits: 1-6 Grading Method: Sat-Fail

Contact department for information to register for this course.

VMSC898 **Pre-Candidacy Research**

Credits: 1-8 Grading Method: Regular, Sat-Fail

Contact department for information to register for this course.

VMSC899 **Dissertation Research**

(Perm req)

Credits: 1-6 Grading Method: Sat-Fail

Contact department for information to register for this course.

Both WMST 200 and 250 serve as introductory courses for WMST and may be required before taking some advanced courses with a WMST prefix.

WMST200 **Introduction to Women's Studies: Women and Society**

Credits: 3 | Grading Method: Regular, Pass-Fail, Audit | CORE: SB, D | General Education: DSHS, DVUP

An interdisciplinary study of the status, roles, and experiences of women in society. Sources from a variety of fields such as literature, psychology, history, and anthropology, focusing on the writings of women.

0101	Jocelyn Coates TuTh 8:00am - 9:15am	Seats (Total: 25) WDS 0104	
0201	Jocelyn Coates TuTh 12:30pm - 1:45pm	Seats (Total: 25) JMZ 0208	

WMST211 **Women in America Since 1880**

Credits: 3 | Grading Method: Regular, Pass-Fail, Audit | CORE: SH, D | General Education: DSHS, DVUP

Cross-listed with HIST211. Credit only granted for: HIST211 or WMST211.

An examination of women's changing roles in working class and middle class families, the effects of industrialization on women's economic activities and status, and women's involvement in political and social struggles, including those for women's rights, birth control, and civil rights.

0101	Katarina Keane TuTh 11:00am - 11:50am W 10:00am - 10:50am	Seats (Total: 24) SQH 1120 KEY 0100	Discussion
0102	Katarina Keane TuTh 11:00am - 11:50am W 11:00am - 11:50am	Seats (Total: 24) SQH 1120 KEY 0100	Discussion
0103	Katarina Keane TuTh 11:00am - 11:50am W 1:00pm - 1:50pm	Seats (Total: 24) SQH 1120 KEY 0100	Discussion

WMST250 **Introduction to Women's Studies: Women, Art and Culture**

Credits: 3 | Grading Method: Regular, Pass-Fail, Audit | CORE: HA, D | General Education: DSHU, DVUP

An examination of women's creative powers as expressed in selected examples of music, film, art, drama, poetry, fiction, and other literature. Explores women's creativity in relation to families, religion, education, ethnicity, class, sexuality, and within a cultural tradition shaped by women.

0101	Taylor York MWF 1:00pm - 1:50pm	Seats (Total: 25) SQH 1103	
0201	Rahma Haji TuTh 3:30pm - 4:45pm	Seats (Total: 25) LEF 1220	
0301	Tangere Hoagland TuTh 11:00am - 12:15pm	Seats (Total: 30) HBK 0115	
0701	Damien Hagen TuTh 9:30am - 10:45am	Seats (Total: 25) JMZ 1215	
0901	Sydney Lewis TuTh 12:30pm - 1:45pm	Seats (Total: 25) SYM 0209	
0902	Lenora Knowles MWF 2:00pm - 2:50pm	Seats (Total: 25) ASY 3219	
0903	Lenora Knowles MWF 11:00am - 11:50am	Seats (Total: 25) WDS 0104	
1301	Amira Lundy-Harris TuTh 3:30pm - 4:45pm	Seats (Total: 25) KEY 0126	
1501	Clara Montague TuTh 11:00am - 12:15pm	Seats (Total: 25) CHM 1224	
1601	Clara Montague TuTh 2:00pm - 3:15pm	Seats (Total: 25) SKN 1112	
2001	Ivan Ramos MW 10:00am - 10:50am F 9:00am - 9:50am	Seats (Total: 20) TWS 1100 KEY 0124	 Discussion
2002	Ivan Ramos MW 10:00am - 10:50am F 10:00am - 10:50am	Seats (Total: 20) TWS 1100 WDS 1131	 Discussion

2003	Ivan Ramos MW 10:00am - 10:50am F 10:00am - 10:50am	Seats (Total: 20) TWS 1100 WDS 1130	 Discussion
2004	Ivan Ramos MW 10:00am - 10:50am F 11:00am - 11:50am	Seats (Total: 20) TWS 1100 KEY 0124	 Discussion

WMST255 **Reading Women Writing**

Credits: 3 | Grading Method: Regular, Pass-Fail, Audit | CORE: HL, D | General Education: DSHU, DVUP

Cross-listed with ENGL250. Credit only granted for: ENGL250 or WMST255.

Explores literary and cultural expressions by women and their receptions within a range of historical periods and genres. Topics such as what does a woman need in order to write, what role does gender play in the production, consumption, and interpretation of texts, and to what extent do women comprise a distinct literary subculture. Interpretation of texts will be guided by feminist and gender theory, ways of reading that have emerged as important to literary studies over the last four decades.

0201	Fatima Taha TuTh 2:00pm - 3:15pm	Seats (Total: 30) TWS 0201

WMST265 **Constructions of Manhood and Womanhood in the Black Community**

Credits: 3 | Grading Method: Regular, Pass-Fail, Audit | CORE: HO, D | General Education: DSHS, DVUP

Cross-listed with: AASP298B.

Investigates the ways that African Americans are represented and constructed in public and private spheres and explores the social constructions and representations of Black manhood and womanhood from various disciplinary perspectives.

Cross-listed with AASP298B. Credit granted for WMST265 or AASP298B.

0101	Michelle Rowley TuTh 11:00am - 12:15pm	Seats (Total: 40) ARC 1105

WMST269G **Special Topics in Study Abroad II; Topics on Gender Studies**

Credits: 3 | Grading Method: Regular, Pass-Fail, Audit

Special topics course taken as part of an approved study abroad program.

Contact department for information to register for this course.

WMST269I **Special Topics in Study Abroad II; Social Problems: Women's Issues in Indian Society**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Special topics course taken as part of an approved study abroad program.

Contact department for information to register for this course.

WMST269R **Special Topics in Study Abroad II; Making Gender, Sexuality and Race**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Special topics course taken as part of an approved study abroad program.

Contact department for information to register for this course.

WMST269W **Special Topics in Study Abroad II; Social Problems: Women's Issues Field Study**

Credits: 1 Grading Method: Regular, Pass-Fail, Audit

Special topics course taken as part of an approved study abroad program.

Contact department for information to register for this course.

WMST275 **World Literature by Women**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit CORE: HL, D General Education: DSHU, DVUP

Cross-listed with CMLT275. Credit only granted for: WMST275 or CMLT275.

Comparative study of selected works by women writers of several countries, exploring points of intersection and divergence in women's literary representations.

0101	Brian Davis TuTh 12:30pm - 1:45pm	Seats (Total: 30) KEY 0126
0201	Keisha Allan MWF 11:00am - 11:50am	Seats (Total: 30) JMZ 2123

WMST298D **Women's Bodies in Contention**

Credits: 3 | Grading Method: Regular, Pass-Fail, Audit | CORE: HA, D | General Education: DSHS, DVUP, SCIS

1001	Jessica Mathiason MWF 2:00pm - 2:50pm	Seats (Total: 30) JMZ 2207
1002	Jessica Mathiason MWF 11:00am - 11:50am	Seats (Total: 30) SQH 1121

WMST314 Black Women in United States History

Credits: 3 | Grading Method: Regular, Pass-Fail, Audit

Restriction: Sophomore standing or higher. Cross-listed with AASP313. Credit only granted for: AASP313 or WMST314.

Black American women's history from slavery to the present. Focused on gaining a fuller understanding of the effect of race, class and gender on the life cycles and multiple roles of Black women as mothers, daughters, wives, workers and social-change agents.

For Spring 2020: Crosslisted with AASP313 and HIST329E; credit will only be granted for AASP313, WMST314, or HIST329E.

0101	Elsa Barkley Brown Tu 4:00pm - 6:30pm	Seats (Total: 35) SKN 1115

WMST325 The Sociology of Gender

Credits: 3 | Grading Method: Regular, Pass-Fail, Audit | , D

Prerequisite: 3 credits in SOCY courses. Cross-listed with SOCY325. Credit only granted for: SOCY325 or WMST325.

Institutional bases of gender roles and gender inequality, cultural perspectives on gender, gender socialization, feminism, and gender-role change. Emphasis on contemporary American society.

0101	Wei-hsin Yu MW 3:30pm - 4:45pm	Seats (Total: 60) ASY 2309

WMST336 Psychology of Women

Credits: 3 | Grading Method: Regular, Pass-Fail, Audit | , D | General Education: DSHS

Prerequisite: PSYC100. Cross-listed with PSYC336. Credit only granted for: PSYC336 or WMST336.

A study of the biology, life span development, socialization, personality, mental health, and special issues of women.

Restricted to WMST or PSYC undergraduate students only.

0101	Monica Kearney	Seats (Total: 110)	
	MW 11:00am - 11:50am Class time/details on ELMs	BPS 1243 ONLINE	Discussion

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WMST350 **Feminist Pedagogy**

(Perm req)

Credits: 6 Grading Method: Regular, Pass-Fail, Audit

Restriction: Permission of ARHU-Women's Studies department.

General application of feminist methodology to teaching and communication skills, teaching strategies, motivation, classroom dynamics and knowledge of students' development and learning styles.

Contact department for information to register for this course.

WMST360 **Caribbean Women**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

An interdisciplinary analysis of the lives and experiences of women across the Caribbean region, through an examination of their roles in individual, national, social and cultural formations. Special emphasis on contemporary women's issues and organizations.

0101	Michelle Rowley	Seats (Total: 30)	
	TuTh 2:00pm - 3:15pm	HBK 1108	

WMST369B **Special Topics in Study Abroad III; Spanish and Basque Gender Studies**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Special topics course taken as part of an approved study abroad program.

Contact department for information to register for this course.

WMST369L **Special Topics in Study Abroad III; Women and Society: Latin American Perspectives**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Special topics course taken as part of an approved study abroad program.

Contact department for information to register for this course.

WMST379A **Topics in Women's Studies; Honors Thesis Writing I**

(Perm req)

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Thematic exploration of a topic in women's studies.

By Permission Only.

Contact department for information to register for this course.

WMST379B **Topics in Women's Studies; Honors Thesis Writing II**

(Perm req)

Credits: 3 Grading Method: Regular, Pass-Fail

Thematic exploration of a topic in women's studies.

Contact department for information to register for this course.

WMST386 **Experiential Learning**

(Perm req)

Credits: 1-6 Grading Method: Regular, Pass-Fail

Restriction: Must have Learning Proposal approved by Women's Studies Academic Advisor; and junior standing or higher. Repeatable to 9 credits if content differs. Formerly: WMST386.

Undergraduate Internship in a position related to Women's Studies and overseen by a member of the WMST faculty.

Contact department for information to register for this course.

WMST400 **Theories of Feminism**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Prerequisite: 1 course in WMST; or must have completed a course cross-listed with a WMST course.

A study of the multiplicity of feminist theories which have been developed to explain women's position in the family, the workplace, and society. Major feminist writings are considered in the context of their historical moment and in the context of the intellectual traditions to which they relate.

0101	Sydney Lewis	Seats (Total: 30)
	MW 2:00pm - 3:15pm	SKN 1115

WMST428F **Topics in Women's Studies; Magical Black Femmes: Constructing Black Femininities**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Thematic exploration of a topic in women's studies.

Queer "femme" identity has its roots in 1940s and 1950s bar culture; however the term continues to have current resonance. Often juxtaposed with butch, femme is loosely defined as a queer feminine gender presentation. This course will use cultural studies and arts and humanities approaches in order to grapple with the messy magic of black femme identity as a radical critique of sexuality, whiteness, gender and intersecting categories of oppression. The messiness of "femme" is revealed when each of those terms in put into question. Who or what constitutes queer? How does one present feminine; is that merely an aesthetic choice? What constitutes feminine? Does one have to be a woman to be feminine? For black femmes, whose femininity has been circumscribed and defined not only against butchness but also against white femininity, claiming "femme" can be a means to turn that "messiness" into "magic."

0101	Sydney Lewis	Seats (Total: 30)
	MW 5:00pm - 6:15pm	WDS 1114

WMST428J **Topics in Women's Studies; Black Feminist Science Studies**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Thematic exploration of a topic in women's studies.

We will examine the ways in which scientific knowledge has historically been shaped by cultural ideas of race and gender and how black feminist approaches to science offer alternative modes of knowledge production. We will explore the history of scientific racism, eugenics, the Black Women's Health Imperative, the search for African roots using direct- to-consumer genealogy testing, and contemporary case studies on gendered and racialized medicine in the fields of genomics, pharmacology, assisted reproduction.

0101	Jessica Mathiason	Seats (Total: 30)
	MW 3:30pm - 4:45pm	TYD 0111

WMST452 **Women in the Media**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit , D General Education: DVUP

Cross-listed with JOUR452. Credit only granted for: JOUR452 or WMST452.

Participation and portrayal of women in the mass media from colonial to contemporary times.

0101	Renee Poussaint, Bobbie Foster TuTh 2:00pm - 3:15pm	Seats (Total: 30) KNI 1103

WMST455 **Women in Medieval Culture and Society**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Cross-listed with HIST495. Credit only granted for: HIST495 or WMST455.

Medieval women's identity and cultural roles: the condition, rank and rights of medieval women; their access to power; a study of women's writings and the constraints of social constructs upon the female authorial voice; and contemporary assumptions about women.

0101	Janna Bianchini MW 2:00pm - 3:15pm	Seats (Total: 30) TLF 1101

WMST469G **Study Abroad Special Topics IV; Gender Studies: A Global Perspective**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Special topics course taken as part of an approved study abroad program.

Contact department for information to register for this course.

WMST469M **Study Abroad Special Topics IV; Sociology, Gender and Indigenous Beliefs in Mexican Cultures**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Special topics course taken as part of an approved study abroad program.

Contact department for information to register for this course.

WMST471 **Women's Health**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit , D

Restriction: Must be in a major within ARHU-Women's Studies department; or must be in a major within SPHL-Behavioral & Community Health department. Cross-listed with HLTH471. Credit only granted for: HLTH471 or WMST471.

The women's health movement from the perspective of consumerism and feminism. The physician-patient relationship in the gynecological and other medical settings. The gynecological exam, gynecological problems, contraception, abortion, pregnancy, breast and cervical cancer and surgical procedures. Psychological aspects of gynecological concerns.

Restriction: Must be in a major within SPHL-Behavioral & Community Health department; or must be in a major within ARHU-Women's Studies department. Cross-listed with HLTH471. Credit granted for HLTH471 or WMST471.

0101	Michelle Jasczynski	Seats (Total: 30)
	MWF 10:00am - 10:50am	SPH 1303
	Restriction: Must be a major in Behavioral and Community Health department; or must be in a major within ARHU-Women's Studies department.	

WMST488X **Senior Seminar; Feminist Conflict**

(Perm req)

Credits: 3

Grading Method: Regular, Pass-Fail, Audit

Seminar for advanced majors in women's studies or other students with appropriate preparation. Interdisciplinary topics will vary each semester.

Why can't we all just get along? This seminar will offer an opportunity to delve into the history, and the present, of conflict and disagreement within feminist movements including the ongoing legacy of the 1980s clashes over porn and BDSM known as the sex wars, women of color and trans critiques of white cis feminist exclusion, and responses to abuse within social justice movements. Rather than seeing conflict as a failure to achieve goals of unity and progress, we will take feminisms fractures a nd disputes as opportunities to study how power and difference operate in struggles for social transformation. We will also ask what it might mean for conflict itself to be feminist. How can we apply feminist principles of justice and care in the most fraught situations, without eliding the structural issues that lead conflicts to develop?

0101	Ashwini Tambe	Seats (Total: 12)
	Th 3:30pm - 6:00pm	TLF 0135

WMST498L **Advanced Special Topics in Women's Studies; Women in Israel**

Credits: 3

Grading Method: Regular, Pass-Fail, Audit

Contact department for information to register for this course.

WMST499 **Independent Study**

(Perm req)

Credits: 1-3

Grading Method: Regular, Pass-Fail

Research and writing or specific readings on a topic selected by the student and supervised by a faculty member of the Women's Studies Department.

Contact department for information to register for this course.

WMST602 **Approaches to Women's Studies II**

(Perm req)

Credits: 3 Grading Method: Regular, Audit, Sat-Fail

Prerequisite: WMST400; or students who have taken courses with comparable content may contact the department.

Continued examination of intersectionality and interdisciplinarity with emphasis on the politics of knowledge production and identity.

0101	Elsa Barkley Brown Th 4:00pm - 6:30pm	Seats (Total: 12) WDS 2101R

WMST618 **Feminist Pedagogy**

(Perm req)

Credits: 3 Grading Method: Regular, Sat-Fail

Examines the higher education classroom from a feminist perspective through theory and analysis. Students are graduate teaching assistants with the Women's Studies department.

0101	Ivan Ramos Contact instructor or department for details.	Seats (Total: 4)

WMST619 **Women's Studies Teaching Practicum**

(Perm req)

Credits: 1 Grading Method: Sat-Fail

Provides Women's Studies graduate teaching assistants with ongoing regular faculty supervision during the semesters the students are teaching WMST courses.

0101	Ruth Zambrana Contact instructor or department for details.	Seats (Total: 10)

WMST621 **Feminist Theories and Women's Movements: Genealogies**

(Perm req)

Credits: 3 Grading Method: Regular, Audit, Sat-Fail

Prerequisite: WMST400; or permission of ARHU-Women's Studies department.

Examines theories to explain the matrix of domination from the nineteenth century to the present. Students learn the key debates that produceed new insights and shifted the ground of subsequent feminist theorizing within multi-racial feminisms. Examines those debates within global perspectives. Examines how dominant theoretical frameworks have been developed at specific historical moments.

0101	Ashwini Tambe	Seats (Total: 12)
	W 3:00pm - 5:30pm	WDS 2101R

WMST628 **Women's Studies Colloquium**

(Perm req)

Credits: 1 Grading Method: Sat-Fail

An intensive advanced exploration of current problems and issues in women's studies.

For WMST students only.

0101	Alexis Lothian	Seats (Total: 20)
	Contact instructor or department for details.	

WMST699 **Independent Study**

(Perm req)

Credits: 1-3 Grading Method: Regular, Audit, Sat-Fail

Research and writing on specific readings on a topic selected by the student which is approved and supervised by a faculty member of the Women's Studies Department.

Contact department for information to register for this course.

WMST709 **Directed Independent Reading for Major Field Exam**

(Perm req)

Credits: 1-4 Grading Method: Sat-Fail

Directed reading in preparation for Major Field Exam. In consultation with their advisors, students identify, analyze, critique and synthesize material relevant to their major fields of inquiry. Grading will be based on combinations of oral performance in the bi-weekly meetings, production of annotated bibliographies and synthetic papers.

Contact department for information to register for this course.

WMST799 **Masters Thesis Research**

(Perm req)

Credits: 1-6 Grading Method: Sat-Fail

Contact department for information to register for this course.

WMST898 **Pre-Candidacy Research**

(Perm req)

Credits: 1-8 Grading Method: Regular, Sat-Fail

Contact department for information to register for this course.

WMST899 **Doctoral Dissertation Research**

(Perm req) Credits: 6 Grading Method: Sat-Fail

Contact department for information to register for this course.